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ECONOMIC, SOCIAL AND PLANNING REQUIREMENTS

for

NORTHERN COMMUNITIES

by

H. D. Linn and J. C. Stabler

1978

DEPARTMENT OF MINERAL RESOURCES

SASKATCHEWAN GEOLOGICAL SURVEY

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PREFACE

The Regional Mineral Resource Planning program was initiated under the Canada-Saskatchewan Mineral Exploration and Development Agreement on March 31, 1974, which is funded by the federal Departments of Regional Economic Expansion (25%) and Energy, Mines and Resources (25%) together with the Saskatchewan Department of Mineral Resources (50%). The objective of the program was, in general,to assess the importance of selected socio-economic factors that may influence mineral resource development in northern Saskatchewan.

This study of single-resource communities constitutes one part of the program. Internal socio-economic and physical problems unique to single-industry communities may inhibit orderly resource development in isolated regions. One of the more significant of these problems is related to labour turnover and an apparent dissatisfaction with life in resource communities. The purpose of this research was to study single-industry communities in isolated regions of Canada in order to identify and evaluate the problems and to suggest ways to overcome them.

A sample of communities was selected for an empirical study which reflected a variety of considerations. The communities had to be related to the development of a resource. The sample had to be small enough to be studied within the time and monetary constraints of the project and yet large enough to contain a good cross-section. The sample included eleven communities from Labrador to the British Columbia coast. Some of the communities selected were old and some were new. Some were poorly planned while others were well-planned. Finally, the communities selected varied in size, complexity and accessibility.

During the initial year of this project, data were collected under the direction of the Project Planner with advice from outside planning and economic consultants. The majority of the field work was carried out by staff researcher, Gerald Fiedelleck.

During the second year of the project, planning and economic consultants, H. Dewell Linn and Jack C. Stabler, were engaged to complete the research and to write this report before March 31, 1976. Their support staff included Rose Olfert, Verna Agnew, and John Hosh.

The community profiles that are presented in the appendices were compiled from Census Enumeration Area data obtained from Statistics Canada and tabulated by the Computer Center at York University, Toronto. Selected data from the Dun and Bradstreet Reference Book and from surveys conducted in the communities visited are also provided in the appendices.

Saskatoon, Saskatchewan
March 31, 1976

Georgean Short
Project Planner

CHAPTER 1

SINGLE-ENTERPRISE COMMUNITIES IN NORTHERN CANADA

Among the nations of the Western world, Canada has probably had more experience in the twentieth century in the development of new towns than any other country. Seventy-five years ago, only a handful of organized communities existed between Winnipeg and Vancouver. What are now the Yukon and Northwest Territories were inaccessible from southern Canada except by water or the rudest means of overland transport.

In the intervening period, the Prairies and substantial portions of British Columbia were occupied, developed, and integrated with the older economies of Ontario, Quebec, and the maritime provinces through the creation of a vastly expanded rail network, thousands of miles of roads, pipelines, airlines, and a variety of forms of electronic communications. In the process, nearly one thousand communities were created where none had existed before.

More recently, particularly since the mid 1940s, tremendous efforts have been made to exploit potential of the natural resources in previously underdeveloped areas in the provinces north of the agricultural zone as well as in the Yukon and Northwest Territories. In the process of exploiting the North's resources, another two hundred communities were created.

It might be supposed that, having built approximately 1200 completely new communities in the past 75 years, a considerable expertise would have emerged in developing viable communities in a frontier setting. Unfortunately, this is not the case. More than three quarters of the organized communities in the Prairie region are experiencing decline. The smaller one quarter are on the verge of non-existence. In the north, the problem is not so much that of decline, at least not as long as the mine or mill which the community serves continues in operation. Rather the problem in the north is a rate of turnover in the population which may, as a statistical average, see the population of entire communities change in the course of a two or three year period.

In one major respect, the decline of the small agricultural service centers in the south and the turnover in the northern resource communities can be traced to a common cause. This is the tremendous attraction, in social, cultural, and economic terms, of the nation's major cities. In the south, new business firms overwhelmingly choose to locate in the country's twenty or so major cities. As new jobs are created in these centers, the labour force, and thus population growth is also focused on these areas. By way of example, the Dun and Bradstreet commercial directory listed 41,458 commercial business outlets in the three Prairie provinces in 1961. In 1972 the same source identified 44,270 firms, a gain of 2,722. Yet between these dates, the region's five major cities gained 3,496 outlets, nearly thirty percent more than the total gain recorded by the three provinces combined. The difference is of course, explained by an absolute decline in many of the region's smaller communities. In terms of population, the five major Prairie cities accounted for more than three quarters of the gain realized by the three provinces between the same dates.

The situation is different in the north in that the major economic activity, the mine or the mill, is geographically tied to a specific location. Similarly tied are the secondary activities which serve the workers, their families, and other residents. The attraction of the city is reflected in this case not in the decline of the community, but in the turnover of its work force and population. The consequences of this turnover are reflected in expensive, perpetual recruitment and training programs for new workers and in socially unstable communities.

In this study, we have attempted to identify some of the specific socio-economic circumstances that have made our northern communities so apparently unattractive to the majority of those who have lingered there. We then suggest some social, economic, and planning alternatives that might be expected to foster a somewhat greater measure of stability than that currently being experienced.

CHAPTER 2

A SURVEY OF SELECTED SOCIO-ECONOMIC CHARACTERISTICS OF NORTHERN COMMUNITIES

I. INTRODUCTION

In order to develop the material presented in this and the following chapters, eleven single enterprise communities in isolated regions of provinces from Newfoundland to British Columbia were selected for study (Figure 1). A researcher visited each of the communities between November 1974 and March 1975. Field-notes recording the researcher's observations were prepared on employment and housing conditions, structure of and the residents' participation in local government, community design, and social opportunity. These notes, as well as an extensive summary of census enumeration-area statistics for each community and selected reference to other published and unpublished works, provide the basis for the observations presented here. The census statistics are reproduced as appendices to this report. Statistics are not available for Fermont, Quebec,and Leaf Rapids, Manitoba,however since they have been developed since the last census was taken. Two summary appendices are presented for purposes of comparison. The first contains aggregate statistics from the nine communities for which individual appendices are available. The second contains statistics for the province of Saskatchewan as a whole.

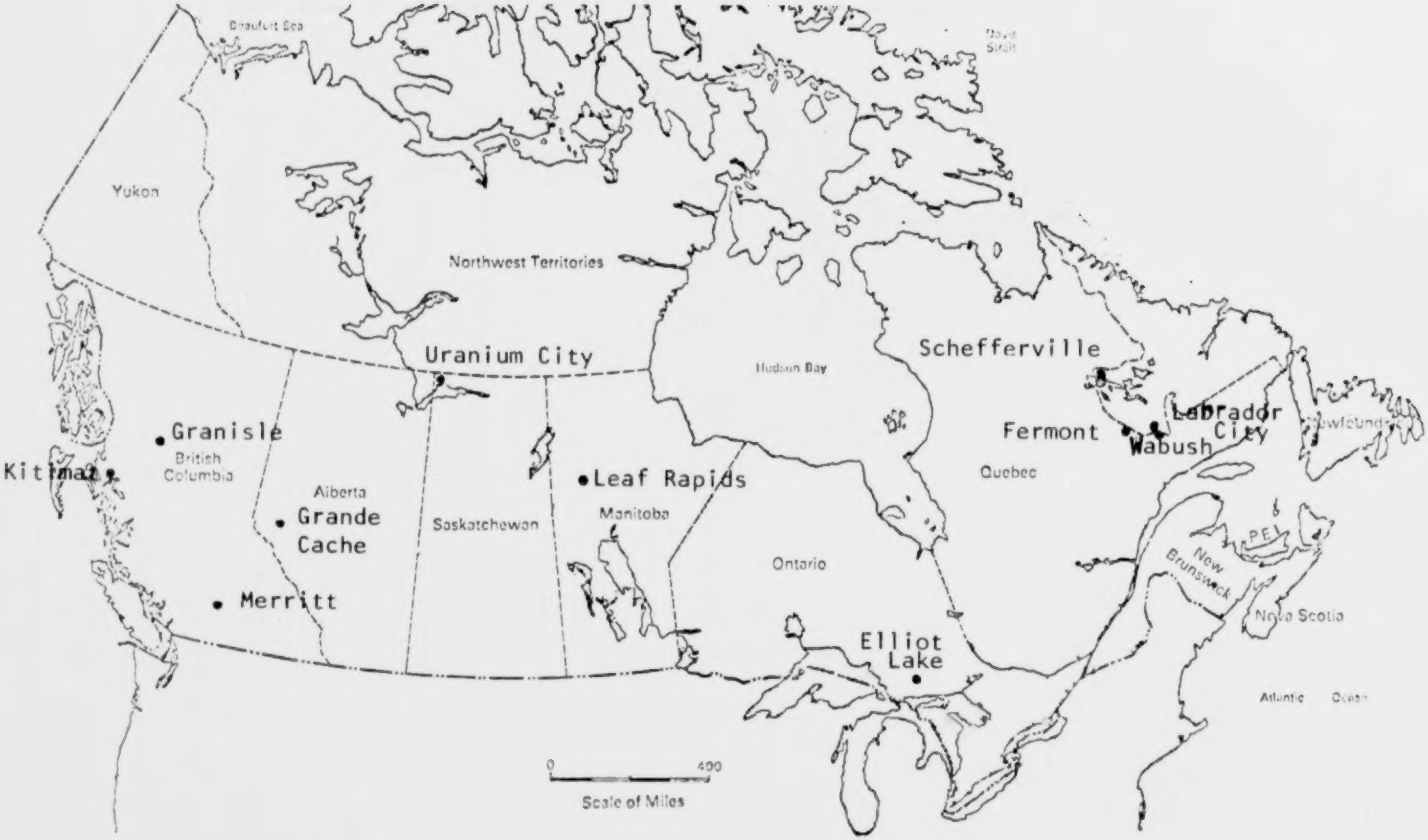
Beaufort Sea
Davis Strait
Yukon
Northwest Territories
Uranium City
Hudson Bay
Schefferville
Labrador City
Fermont
Wabush
Newfoundland
Granisle
British Columbia
Kitimat
Alberta
Grande Cache
Saskatchewan
Leaf Rapids
Manitoba
Quebec
P.E.I.
New Brunswick
Merritt
Ontario
Nova Scotia
Elliot Lake
Atlantic Ocean
0
400
Scale of Miles

Figure 1. The Survey Sample of Single Enterprise Communities in "Northern" Canada.

All of the communities surveyed are relatively isolated from major centres in southern Canada. Only five are accessible by all-weather roads. All but one receive regularly scheduled air-service. Two are accessible by water and six by rail. These communities were chosen so that the study would include isolated communities of different size and age.

II. SELECTED CHARACTERISTICS OF THE POPULATION

In the nine communities included in the census of 1971, the total number of males outnumbered females by about 12 percent (1.116:1.000). The ratio varies when age is considered. For those older than 25 years the ratio was 1.245 males per female. In the under 25-age group the ratio was 1.029 to 1.000.

Relatively young people populated the northern communities surveyed. Eighty-eight point three percent of their inhabitants were under 45 years of age, and in fact, 57.2 percent were under 25. For Saskatchewan, the respective percentages were 69.4 and 47.9. The population of the northern communities is concentrated in the age-groups 20-44 years and 0-14 years; that is, it consists primarily of young workers and their dependents.

Families in the communities surveyed tended to be larger than families in Saskatchewan. For the province, 36 percent of the census families consisted of single persons in 1971, while in the survey only 29 percent of the families were so designated. In addition, 21 percent of the families in Saskatchewan consisted of two persons; in the north the figure was 15 percent. Surprisingly perhaps, 57 percent of the families in the communities sampled consisted of three or more people, while the comparative figure for the province was only 43 percent.

The demographic statistics of the northern centres thus describe a population consisting predominately of young, married couples with young families. Single adults in the north, 29 percent of the total, were mostly males, while, in the province, there was almost a balance between single males and single females.

Most of the residents in the northern communities surveyed, 82 percent, were born in Canada; 57 percent lived in a community in the province of their birth. The comparative figures for Saskatchewan were 88 and 77 percent respectively. Fifteen percent of those living in northern communities in 1971 were born in Europe or the U.K., a somewhat greater proportion than the nine percent of Saskatchewan's population from these countries.

III. SELECTED CHARACTERISTICS OF THE LABOUR FORCE

The most striking characteristic of the northern communities is the concentration of employment in a single major activity. Excluding Kitimat from the group of nine communities for which census material was available, 45 percent of the labour force in the remaining eight centres was engaged by the mining industry. In Kitimat, the major activity, production of aluminum from bauxite, is classified as a manufacturing industry. Manufacturing engaged 51.9 percent of Kitimat's labour force, almost all of which was directly associated with the production of aluminum.

In the mining communities, the labour force in the mining sector is almost exclusively male. Only 4.0 percent of the jobs in that industry in the communities surveyed were held by females. In Kitimat, women held 6.6 percent of the jobs in manufacturing.

The economic structure of single enterprise communities is simple, consisting usually of the mine, mill, or smelter and a group of support industries in the trade, service, transportation, and communication sectors. In the sample communities, the labour force was divided about equally between the basic and the supporting industries. The statistics indicate clearly that most of the communities have not broadened their economic base. The exceptions are Kitimat, where some development in forestry has occurred, and Merritt, B.C., which was a local service centre for an agricultural region and also for an extensive forestry operation before the mine developed. In the supporting industries, females comprised 51 percent of the labour force, a considerably larger proportion than the 43 percent that females comprised in the same industries in Saskatchewan.*

Because the basic industry provided approximately half the jobs in the northern communities and because there were so few jobs in these industries held by women, the percentage of females in the northern labour force was relatively low, only 25 percent compared with 33 percent for the province. However, the population of the northern communities was somewhat more concentrated in working-age groups than was the case in Saskatchewan. Thus the population to labour force ratio was approximately equal at 2.5:1.0 in both cases.

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*The comparison included the labour force in all trade, service, public administration, finance, insurance, real estate, transportation, communications and unclassified occupations in the northern communities and the province.

In terms of educational achievement, the residents of the northern communities surpassed the province by a considerable margin, a reflection, at least in part, of the younger population. In Saskatchewan, 22.3 percent of the population not attending school in 1971 had completed grade 12 or better. In the north, the corresponding figure was 28.3 percent. Furthermore, only 27.9 percent of the northern residents not attending school had achieved less than grade nine, while the comparable figure for the province was 47.4 percent.

In 1971, incomes in the northern communities were also considerably higher than in Saskatchewan. The average income of the head of a family was $ 9,285* compared with $5,761 in the province, while average total family income was $10,673* as contrasted with $7,311 in the province. Even accounting for higher prices, these figures suggest that real incomes were substantially above those in Saskatchewan at the time of comparison.**

There did not appear to be a major difference in occupational skills between the northern communities and the province, although the census data are not provided in sufficient detail to make a critical comparison in this regard.

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*These figures are the simple averages of the averages for the nine communities.

**Deflating the northern figures by 20 percent, the income of family heads is still 34 percent above the comparable figure for Saskatchewan. Average total family income is 22 percent higher by the same comparison.

IV. LABOUR TURNOVER

Labour turnover is cited as a perpetual problem faced by employers in remote communities. The costs of this turnover appear in two ways. First, they appear as the direct cost experienced by the employer in attracting and training replacements. Second, they appear as an indirect cost to the industries in question in lost production due to vacancies going unfilled for a time or to operation with an inexperienced staff.

For the migrant worker, the cost of changing jobs is always a loss of potential earnings while he is between jobs as well as the cost of moving. The cost may also be psychological or emotional, however, if the migrant worker has a family, for his children will be disturbed by having to change schools and make new acquaintances at the end of the move.

There have been numerous studies of various aspects of labour turnover in the north and many of these works are referenced in the bibliography to this report. Moreover, some statistics compiled from a questionnaire sent out by the Canadian Mining Association (CMA) in 1974 are reproduced here. These figures provide an indication of the magnitude of the turnover problem, as well as some characteristics of the working force involved and locations most seriously affected.

The data reported were obtained from 80 mineral mining operations in seven provinces, the Yukon, and the N.W.T. Of the 80 mines, 46 operated underground, 21 were open-pit, and 12 were engaged in both simultaneously.

Respondents in all locations and in all types of mining reported labour turnover problems. On the basis of the information obtained from the 80 respondents, it was inferred that one-third of the mineral-mining industry's working force terminated employment with its (then) present employers in 1973.* The highest turnover rate was in the unskilled labour category. The turnover rate decreased as the level of skill increased. An intermediate turnover rate was registered by skilled miners and office workers, while the rates for technical, managerial, and supervisory staff were relatively low and similar. The actual rates reported are shown in Table 2-1.

Table 2-1 PERCENTAGE LABOUR TURNOVER BY CATEGORY, 1973

Category	Mean Percentage Turnover
Unskilled labour	127.8
Skilled miners	49.8
Office workers	41.7
Technical staff	27.6
Management staff	22.2
Supervisory staff	22.0

Source: CMA questionnaire

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*The rates of turnover as reported in the questionnaire refer simply to the number of employees leaving the mining operation divided by the size of the operation's working force.

Unskilled workers made up about 15 percent of the working force in those firms sampled, while skilled miners made up approximately 50 percent of the working force. Since the turnover rate for skilled miners was 50% while the rate for unskilled workers was over 100%, the absolute numbers of workers leaving their jobs were, thus, approximately equal in each category.

Turnover rates were also influenced by age. Unskilled workers under 30 and skilled workers under 40 were much more mobile than older workers in each category.

Another study, published by the Center for Settlement Studies at the University of Manitoba in 1974,* reached similar conclusions regarding age. The Manitoba study also investigated the influence of marital status and length of employment on the turnover rate. They conclude that "...gross data indicate that employees who quit are likely to be: (1) underground workers, (2) less than 25 years of age, (3) unmarried and (4) employed less than one year."**

Regionally, in the CMA data, British Columbia and the Northwest Territories had higher turnover rates than were reported elsewhere in the country for both skilled and unskilled categories. Mines in Quebec experienced the greatest stability, with Ontario and the Prairies occupying an intermediate position.

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*J.A. MacMillan, et.al., Determinants of the Labor Turnover in Canadian Mining Communities (Winnipeg: Center for Settlement Studies, University of Manitoba, 1974).

**p. 58. The CMA questionnaire does not indicate that underground mining operations experienced higher turnover rates than open pit mines, although the question does not appear to have been as systematically investigated as in the study from the University of Manitoba.

Both the CMA and the University of Manitoba studies provide a weak indication that greater isolation is associated with lower rates of turnover. The CMA study, which investigated the relationship in more detail than was done in the study from the University of Manitoba, suggests that greater stability is associated with a location that is (a) within 10 miles of a major city or (b) over 250 miles from a major city. Higher turnover rates were associated with intermediate locations. A possible interpretation of these observations might be that mines within 10 miles of a major centre are close enough for the labour force to enjoy the amenities provided by the city either by actually living there or visiting it frequently. Locations more than 250 miles from the city, on the other hand, will impose a greater moving expense on workers quitting to leave for another location, and this may contribute to a measure of stability. Intermediate locations may be too far removed from the city to allow workers to systematically visit, but they are not so far removed as to impose a major cost barrier on those wanting to leave.

In any event, the cost of the turnover to the mineral mining industry alone was estimated to be as much as $48 million in 1974 for recruitment and training based on the CMA questionnaire's returns. Revenue loss of up to $320 million was estimated due to operation at less than full capacity.

V. HOUSING CHARACTERISTICS

Comfortable and pleasant surroundings undoubtedly influence the family's impression of the community in which it lives. The house or apartment is probably the single most important item in this regard.

The dwelling itself may be evaluated in terms of size, quality, and appearance. Selected information on size and appearance is available; quality, however, is much more difficult to evaluate.

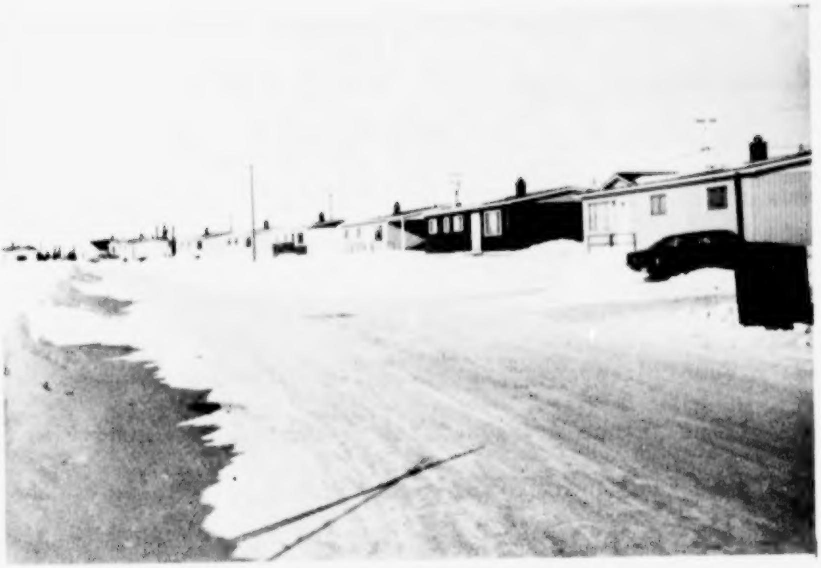
In terms of the number of rooms, dwellings in the communities surveyed were generally larger than those in Saskatchewan. For example, 34 percent of the dwellings in the province had four or fewer rooms compared with 27 percent in this category in the north. In the province, 25 percent were five-room dwellings as opposed to 30 percent in the survey. Dwellings of six to nine rooms accounted for 42 percent in the north, while in Saskatchewan only 38 percent were of this size. At the upper end of the scale, however, 2.6 percent of the dwellings in Saskatchewan had ten or more rooms compared with only one percent of this size in the communities surveyed.

While dwellings in the northern communities surveyed tended to be more concentrated in units of relatively larger size than those in Saskatchewan, they were usually situated in unimaginative and monotonous, or even unattractive subdivisions. This was generally true of single-family dwellings, duplexes, apartment houses, town-houses and trailer courts alike with only the occasional refreshing exception. In most communities structures of uniform design were situated in uniform positions on uniformly sized lots with, in most cases, no landscaping of any sort. Sometimes an attempt at variety was made by painting the structures a variety of different colours or by situating the structures so that they faced different directions. The striking beauty of the natural surroundings usually stands in stark contrast to the man-made features.

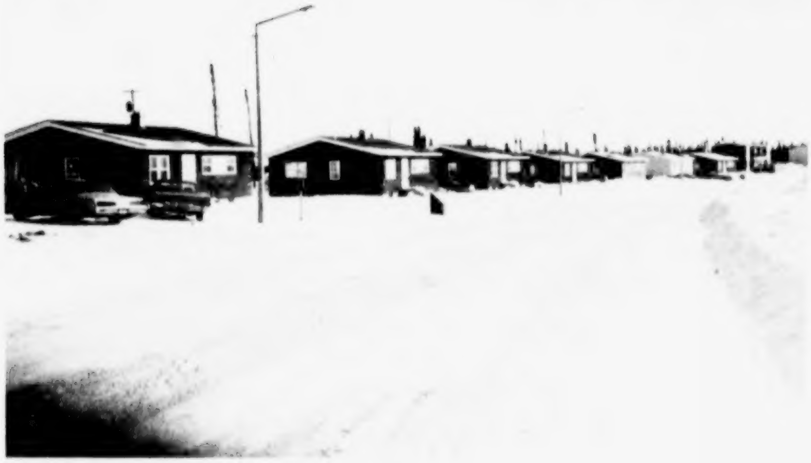
Because residential and collector streets were not differentiated, major traffic flows often passed through residential areas creating a nuisance as well as a danger. All too frequently, there was insufficient provision for the separation of pedestrian and vehicular traffic. Some of these factors, such as the uniform design of structures and lack of landscaping, probably represent an attempt to minimize cost. Others, such as poor street layout and generally unimaginiative subdivision design, probably reflect either indifference to planning principles or the haste with which these communities are often built. Figures 2, 3 and 4 show representative dwellings in the communities surveyed.

In terms of quality, that is, the standards to which the houses were built and the care that was taken in constructing them, reports varied even within individual communities. In some communities, the majority of the people questioned were satisfied; in most, some were satisfied while others were not. In only a few cases were the majority dissatisfied with the quality of construction.

The design of northern dwellings, however, generally reflects little or no effort to create structures especially suited to northern climatic conditions. Most dwellings do not have sheltered or protected entryways. Often insufficient closet space was provided for storing winter clothing. Of those who complained of quality, one of the more frequently-mentioned concerns was insufficient insulation which led to high fuel costs. Garages were typically not available nor were sheds or other outside facilities for summer storage of snowmobiles or winter storage of outboard motors or other summer recreational equipment.

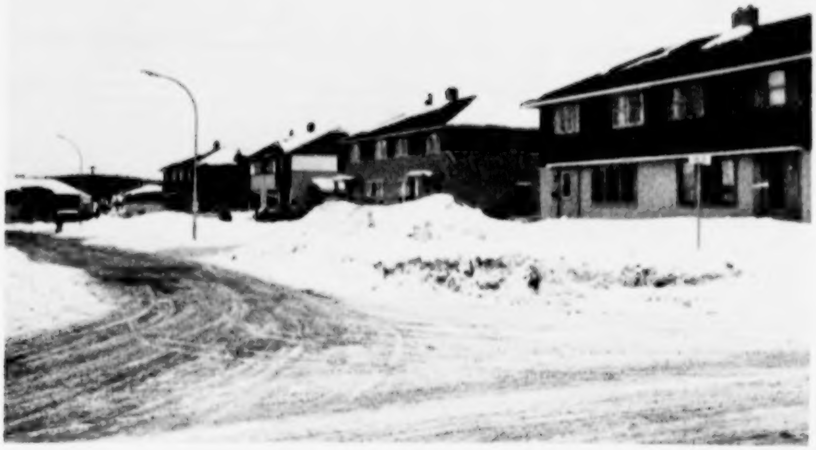


Single Family Dwellings in Wabush

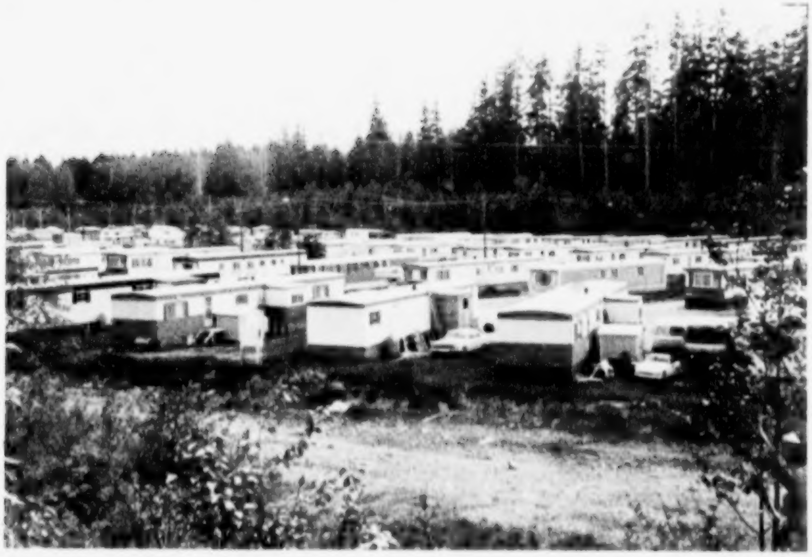


Single Family Dwellings in Wabush

FIGURE 2

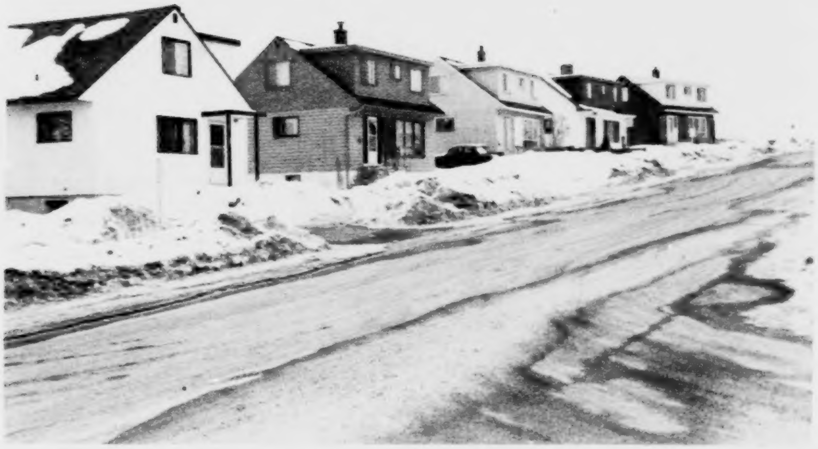


Duplexes in Labrador City

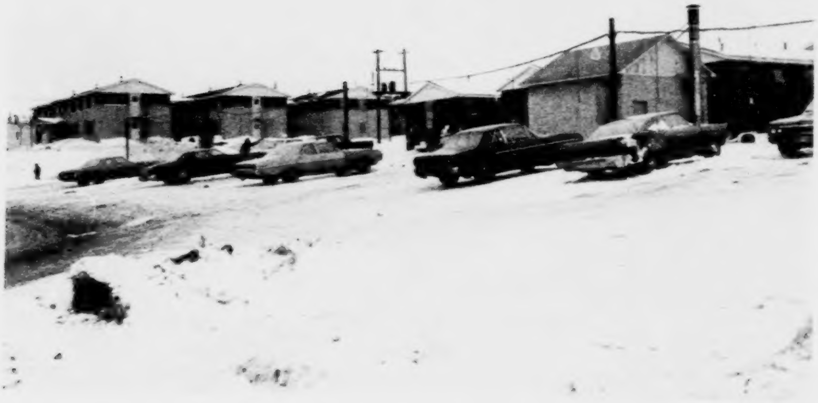


Trailer Court in Kitimat

FIGURE 3



Single Family Dwellings in Elliot Lake



Bunkhouses in Labrador City

FIGURE 4

In most northern communities, employees of "the company" are eligible for what amounts to a housing subsidy. In the past, it was not uncommon for major companies to simply rent dwellings to their employees at less than market value. More recently, company employees have been encouraged to buy their accommodations and are aided in doing so by provision of low interest or interest-free second mortgages of $10,000 or so. Employees of government agencies such as teachers, the RCMP, etc., are usually provided accommodations. Employees of the service industries, on the other hand, usually have a harder time obtaining shelter. They are most often ineligible for company housing or loans, unless, of course, their spouse is a company employee. These people usually have to resort to the private market and end up paying much more for their accommodations than company employees, a fact which is sometimes the basis for dissatisfaction on the part of those affected.

Ownership patterns vary a great deal from one community to the next, a likely reflection ofthe extent to which the company has encouraged ownership and made mortgage funds available. The census statistics indicate that 70.4 percent of the dwellings in Grand Cache, Alberta, are privately owned, while 68.5 percent of the dwellings in Schefferville, Quebec, are rented. The other communities surveyed fall between these rather wide extremes.

VI. CHARACTERISTICS OF THE COMMUNITY

Because of the rugged topography characteristic of much of the Canadian Shield and the Rocky Mountains, most resource towns are situated in locations that are difficult to develop. Consequently, they come in a variety of shapes and forms.

Uranium City, Saskatchewan, for example, has a linear-grid circulation pattern which roughly parallels the lakeshore for several miles, although the town is situated several hundred yards back from the water in most places. Even though options in design were constrained by the uneven topography, Uranium City manages to convey the image of a small, Prairie, farm-service centre complete except for the railroad and grain elevators. The central commercial core sprawls over an area of several blocks. Most of the stores, schools, recreational facilities and governmental offices occupy separate buildings. Only those residents living near the centre of town could contemplate going out for shopping, business, or pleasure without driving their car. Even so, a multi-purpose trip would involve a walk of several blocks and would necessitate recurring exposure. While this could well be pleasant during the summer months, it would be distinctly inconvenient during the much longer winter.

At the other end of the spectrum, Leaf Rapids, Manitoba, a community of similar size, is very compact in design. An enclosed, climatically-controlled mall occupies the centre of the town. The mall contains all commerical facilities and governmental offices, the school, library, hospital, hotel, and indoor recreational facilities. Only the RCMP detachment, the fire hall, and buildings housing light industry are not contained within the mall. There is a single collector-street (along which there is no housing) running in a semi-circle around the town centre.

This street connects with provincial road 391 on the northern and southern outskirts of the town. Residential bays are developed off this collector-street and all dwellings are within 10-15 minutes maximum walking distance of the town centre to which they are connected by a system of lighted walkways.

Most of the other communities surveyed have more in common with Uranium City than Leaf Rapids. For the most part, they resemble the worst examples of unimaginative, poorly planned, sprawling suburbs of southern cities. Two exceptions must be mentioned. Kitimat, one of the earliest planned communities does not fall into this category. The design requirements for its coastal location, however, differ significantly from those for communities in the sub-artic interior. It is, therefore, unique in this respect among the communities surveyed. Fermont, Quebec, is the other exception. Designed and constructed in the 1970s, it is in several respects similar to Leaf Rapids. It is similar most significantly in that the community's facilities are also contained in a single structure. There is a major difference however between these structures in Fermont and Leaf Rapids. The mall in Leaf Rapids is low and designed to blend in with the natural surroundings, while that in Fermont resembles an elongated, high-rise, apartment building constructed in this way to serve as a windbreak for the dwellings situated to the leeward.

Further discussion of the design of the communities is presented in chapter four which is a case study of the traditional approach to the development of northern townsites, and chapter five, which is a case study of the more recent approach.

In terms of the commercial facilities provided, it might be supposed that a greater variety and number of outlets would be found in the northern communities than in southern centres of a similar size. By and large, however, this is not the case. A comparison of five service centres in rural Saskatchewan indicates that these centres had from 50 to 100 percent more unique commercial facilities per 1,000 population than did the northern communities.* This is almost certainly explained by the fact that the towns in southern Saskatchewan also serve a rural population about equal to that of the town itself. Thus a mining community of 5,000 people will provide approximately the same number of unique commercial services as a rural service-centre of 2,500 to 3,000 population. As expected, the number of services increases with the size of the centre. Detailed comparisons are provided in the appendices.

VII. SOCIAL SERVICES AND SOCIAL OPPORTUNITY

All of the communities surveyed provide a relatively full range of conventional social services. All have elementary and secondary schools. All communities have at least one doctor, most have at least three and some have several more. Psychiatric services are generally not available in the communities, but social workers are present in most of the centres surveyed. Radio, television, and telephone services are usually available.

In all of the communities, a relatively complete range of conventional recreational facilities are present and recreational directors are usually employed to arrange and coordinate activities. Formal and informal social clubs seem to have developed spontaneously in each of the communities.

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*The comparison was based upon the number of unique Standard Industrial classification (SIC) Codes.

In some, but not all, of the northern towns, day-care centres were in operation and were very popular with mothers of young children who work or like to spend some time away from the home. In communities where this facility was not available, its presence was very much missed.

Cultural programs were usually not as well developed as social and recreational programs. A desire for more art displays, live theater, and university classes taught in the centre was expressed by some of the residents in several communities.

On the average, larger communities had better developed social services and provided more scope for social opportunities than smaller ones. However, in the recent past social considerations have received more attention in the development of northern communities. Thus, communities which have been developed since 1970 may provide more in this regard than older places of a similar size.

VIII. GOVERNMENT IN SINGLE ENTERPRISE COMMUNITIES

The development of a community is a complex process involving both direct and indirect government involvement at different levels. First is jurisdiction given to the provinces over communities under the BNA Act. Ultimately there is the responsibility of local government in the administration of the community.

The provincial government not only has authority, it also has responsibility regarding the development of a new community. At the highest level, the province must ensure that the development is desirable and that it does not create environmental conditions that would be undesirable for present and future populations. The government may choose to assume responsibilites for the provision of schools and health care and may also become financially involved in the provision of the urban infrastructure, including roads, water, and sewerage systems. It may assume responsibility for protecting private and public investment by ensuring a reasonable longevity before it allows a community to be built.

Local government evolves slowly. In the formative years of the development of a new community, there is not the "making" of a representative governing body. Everyone is new to a new environment and new to each other. Social groups have not solidified and peer groups have not yet emerged. The need,however, for a decision-making and administrative body is urgent, particularly in areas concerning responsibility for construction and later for administration of public utilities, social services, and perhaps housing. The experience of some of the communities' studied will serve to illustrate alternative approaches that can be adopted.

In the early experiences of Quebec and Newfoundland, the provinces minimized their involvement in the development of communities to serve resource communities. All townsite-related investments and investments in transportation were the responsibility of the mining companies. In the case of Schefferville, basic problems arose due to the company's lack of experience in planning townsites. This resulted, in part, in poor design, and insensitivity to the social requirements of the people who were to live there. A "company town" atmosphere developed because of the extensive involvement of the mining company.

The Quebec Mining Town Act provides for the appointment of a five-man Board of Trustees, with the same powers as a conventional local government, to govern the town. After five years (unless the government decides to extend that period), the legislation requires the election of a mayor and council.

In Schefferville, the provincial government considered it desirable to postpone election of a local government until 1967, thirteen years after the townsite was first established. During this period, the town was governed by an appointed mayor and council. With the attainment of full municipal status, the mining company withdrew its direct financial support of the town. Since the mining properties were outside the town's limits, the mining company did not provide indirect support through direct taxation either, leaving the community with an insufficient financial base on which to operate effectively.

The experience at Elliot Lake, Ontario, provides an interesting contrast. It was planned and developed by the provincial government in an attempt to minimize the undesirable social and economic characteristics of the traditional company towns. A principal difference in Elliot Lake is that the town's municipal boundaries were established such that they included the mining properties. In this way, these properties could be assessed and taxed, adding significantly to the tax base. This enabled the town to initiate and carry through projects on its own, as most local governments in southern Canada do.

Incorporation of a large area around the community afforded the added advantage of controlling fringe development and speculative activity through zoning regulations and a development plan for a large local area. This also ensured that subsequent growth occurred adjacent to the town so that it could use its facilities and services and contribute as well toward the town's development through property taxation. In addition, undesirable, "squatter" type development was controlled.

The development of the new town of Leaf Rapids in northern Manitoba was also undertaken by the provincial government and provided for provincial planning and control throughout the construction phase. In this case, too, the mining property was included on the municipal tax rolls. The Leaf Rapids Development Corporation was created to plan and build the town and to administer it only until a conventional form of local government, an elected mayor and council, could be formed. The crown corporation approach proved to be an effective method of expediting development. A comprehensive design was prepared and the plan was followed. The result is an attractive townsite which promises economical operation and encourages social interaction. The administration of the town has been turned over to an elected mayor and council. Inclusion of the mining property on the tax rolls will insure that the community has revenue to plan and execute all normal, local, governmental functions.

CHAPTER 3

ECONOMIC, SOCIAL, AND PLANNING REQUIREMENTS FOR NORTHERN COMMUNITIES

I. INTRODUCTION

The prospect of living and working in an isolated resource community in the north is obviously not one which a majority of Canadians find appealing. Yet the north is a storehouse of natural resources and exploration and development move steadily to the more remote regions of the provinces and territories. It is certain that many new developments will be undertaken in northern Canada as discoveries are made and as demand grows sufficiently to warrant exploitation of those resources now known to exist. With most of these developments, the establishment of a community will at least be considered. In this chapter, we review some of the factors basic to the question of whether to build a community or to utilize some alternative approach for providing facilities to the labour force engaged in extractive activities. We then consider some ways in which working and living in remote communities might be made more attractive so that the problems associated with high rates of labour turnover might be alleviated.

II. TO BUILD A COMMUNITY?

Some economic activities in northern Canada are based on renewable resources which, if managed properly, may last indefinitely. Others are based on the exploitation of non-renewable resources. Forest-based resource industries and the generation of hydro-electric power are characteristic of the first category, while mining activities fall into the second. A degree of permanence is associated with the use of renewable resources that is not characteristic of activities based on extraction of those that are non-renewable. It is to centres serving industries which utilize non-renewable resources that we address ourselves in this section.

Communities that are built to serve industries which extract non-renewable resources are faced with the inevitable question of what to do when the resource is exhausted. Due to the relative durability of houses, buildings, and much urban infrastructure, the community may well have a physical lifespan greater than the economic lifetime of the activity which it was created to serve. The reluctance to abandon a physically useful community has given rise to a variety of suggestions about how to prolong its economic usefulness.

1. Diversification

Diversification of the economic base is frequently mentioned as a means of introducing permanence and stability in single industry towns. It is also argued that diversification will reduce the real or imagined dominance of "the company" and will bring in people with different skills and interests. A more heterogeneous population, it is argued, will also enhance the social attractiveness of the community.

Certainly, substantial diversification will lead to greater economic viability, and usually, greater stability as well. But diversification that is sufficient to create economically viable and stable communities is difficult to achieve even in small to medium sized cities in southern Canada.

To create stability in a community where approximately one-half the labour force is employed in a single basic industry would require expansion of other types of basic employment to the point where the resource industry accounted for, say, no more than ten percent of total employment. If the basic industry in the community initially employed 500 persons, other basic activity would have to be developed which would employ 1,500-2,000 additional workers in order to achieve this objective. In the process, the community would grow from a population of approximately 2,500 to something like 8,000-10,000. For most northern communities, it would be virtually impossible for this type of expansion to occur spontaneously. The location of markets, high transportation costs, higher labour costs in a remote setting, as well as climatic and topographic constraints all divert profit-motivated producers from such locations.

Permanence could be assured with less diversification than that required for stability, but the question then becomes one of whether it is desirable to maintain a community whose chief means of support has ceased to operate at the location. Of the communities in our sample, all would experience a very serious decline if their basic industry shut down completely; most would simply cease to exist.

The difficulty associated with creating either permanence or stability by fostering diversification within the community has elicited alternative suggestions. One of these is aimed at creating viability for a limited number of centres through a selective location plan for strategic communities.

2. Regional Planning

One variant of this idea proposes the development of fewer, more centrally located communities which would serve several mining operations. There are some possible advantages to such a scheme. By concentrating the population, a larger community, capable of producing a greater range of commercial, health, educational, social, and recreational facilities, is created. Duplication is also eliminated or at least minimized. Further, by serving several mines, the exhaustion of one ore body will not lead to the demise of the regional centre as it likely would in the case of a community established to serve a single mine.

This idea makes sense when the mines in question are situated within a radius of perhaps 25 road miles from the community. One obvious drawback to the proposal, however, is that the extent of mineralization in the area may not be known at the time the first mine is developed. Flin Flon is an example of a community that is in the fortunate position of being able to serve several mines, but this appears to be more the result of good luck after the fact than good planning from the outset. The reluctance of workers to travel much more than 50 miles round trip per shift further limits the usefulness of this suggestion.

A second variant of the central-location proposal emphasizes a regional planning approach on a much more comprehensive basis. It applies where the region is at a relatively undeveloped stage, as in northern Saskatchewan. In planning for the systematic development of the area, a grid-system of roads with urban centres situated at convenient intervals could well form part of a plan of development. Such centers might be thought of as administrative, educational, and medical centres. If such communities were situated in locations where they could also function as service centres for one or more mining operations, they would serve a dual purpose. Implementation of this approach, however, implies a master plan for the development of the region and is not something which an individual mining company or even an individual governmental department could initiate. Further, the same drawbacks mentioned earlier also prevent this suggestion from being a general solution. The extent of mineralization in the region would not likely be known at the time that the centres were developed. Once additional discoveries were made beyond commuting distance to the regional centres, the problems of establishing a new community arise again.

3. The Non-Permanent Community

In recognition of the limited life span of extractive activities and the difficulty of attracting other basic employment to isolated locations, it has been suggested that non-permanent, as opposed to conventional or permanent communities, be built to serve mining operations. Then, if a mining operation terminates, all or part of its community would be transported to a new location. Mobile homes and/or prefabricated, demountable structures are the units out of which the non-permanent community would be built.

Mobile homes are used by a number of highly mobile workers, those in the trades associated with construction, for example. Demountable prefabricated structures are frequently used where it is known that the structure will not be required for more than a short period. The housing and maintenance buildings for workers constructing pipelines or hydro-electric dams in remote locations are examples of situations in which planned non-permanence is clearly practical.

The mobile home would be of limited usefulness, however, in sub-arctic or arctic locations. While modern mobile homes can be properly insulated for extreme cold and are often attractively furnished, they are generally smaller than the standard bungalow. This is a definite disadvantage to a family with children because the weather for seven to nine months of the year discourages the spending of time out-of-doors. For single persons or couples with one or even two young children, however, mobile homes may play a useful role. Many of the communities surveyed had parks for mobile homes but mobile homes did not constitute a major portion of the housing in any centre. It seems likely to us that extensive use of mobile homes would generally provide inferior accommodation to what is currently available and that it would accentuate the atmosphere of transience. If so, this would probably have an adverse rather than a positive effect on the rate of labour turnover.

While reference has been made to prefabricated, demountable structures, their use for commercial and family purposes appears to be rather limited. The Tennessee Valley Authority apparently developed such facilities to house construction workers and their families during the 1930s when several dams were being constructed on the Tennessee River and its tributatries. The example is so far removed in time and circumstance, however, that the experience may be of extremely limited value in the present context. For example, it was known at the outset that the "community" would have to move every two to five years. Water, road, and rail transport facilities were readily available in the Tennessee Valley, a condition that does not usually prevail in the more remote regions of Canada where development is likely to occur. The period referred to, the 1930s, was characterized by very high levels of unemployment; thus workers were undoubtedly much easier to retain than is true today. Finally the experiment was conducted in a sub-tropical climate. Whether prefabricated, demountable structures would provide adequate protection and comfort (at costs comparable to permanent structures) in a sub-arctic or arctic environment is not known. The proposition is worthy of further research inquiry, but it does not appear to be an operational alternative at the present time.

4. Commuting

One alternative to those previously mentioned is to provide only minimal "dormitory" facilities at the minesite and fly the labour force in from the closest existing cities. This approach is being used by Gulf Minerals at their mine-mill operation at Wollaston Lake, Saskatchewan. The advantages inherent in this approach include the low initial cost of developing on-site facilities. Simple dormitories and a minimum of recreational facilities coupled with a central dining hall are all that have been developed to date. Families live in larger urban centres in north-central Saskatchewan and consequently avoid the socio-economic problems associated with living in small, remote, resource communities. Employees work seven, twelve-hour shifts and then return to spend a week with their families.

There are some disadvantages, if not outright risks, however, associated with the commuting option. Regular flights into and out of a remote northern airfield may carry with it somewhat more risk than a flight of approximately the same distance between two southern centres such as Saskatoon and Winnipeg. Further, as argued earlier by the Canadian Labour Congress, seven twelve-hour shifts may increase worker fatigue, reduce alertness, and add to the risk of injury or mistake. If so, the consequences of a serious accident are compounded by the fact that only minimal medical facilities are available at the camp. In addition, it may be that the somewhat unusual pattern of the husband-father being home for a full week, then away for the next, will lead to its own variety of socio-psychological problems of adjustment.

Nevertheless, the experiment is an interesting one and, if proven successful, would appear to be an alternative worthy of careful consideration under the appropriate circumstances. It would appear to be an attractive option when the minesite is within commuting distance of established centres from which a labour force can be obtained and, either (a) the work force is too small to support a viable on-site community, or (b) the anticipated life of the orebody is only a few years.

5. Community Size

The question of the optimum (economic) size of a community has intrigued researchers for many years. A considerable amount of research has been conducted in an attempt to identify the size of city within which the per capita costs of providing municipal services is the least. Unfortunately, for present purposes, the empirical studies have concentrated primarily on centres larger than the typical resource community. For what it is worth, however, the following quote based on an analysis of 70-90 Ontario communities is included.

> With regard to the critical issue of population size, our results do not suggest an overwhelming preponderance of economies of scale in the production of municipal goods.... It is true that, for the categories of water supply and public works, there is some evidence of the existence of economies of scale, which, however, appear to be exhausted by the time a population size of 150,000 or 200,000 is reached. On the other hand, our calculations suggest that quite small municipalities, even those with populations in the range of 5,000 to 10,000 persons, can provide fire and police protection, sanitation and waste removal, conservation of health, recreation, and general government services as cheaply, or even more cheaply than can the larger municipalities.*

This would seem to indicate that resource communities of 5,000 or more might not be at a great cost disadvantage in providing most municipal services because of size alone, although isolation would, by itself, impose higher costs than would be incurred in a developed region.

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*Ronald G. Bodkin and David W. Conklin, "Scale and Other Determinants of Municipal Government Expenditures in Ontario: A Quantitative Analysis," International Economic Review, 12 (October, 1971), pp. 465-481. The authors caution against unqualified acceptance of their findings because of the difficulty of quality comparison, lack of data on factor prices and general quality of the data.

Studies of the cost of development in resource communities have usually been conducted on a case by case basis and are not directly comparable from one community to the next.* Nevertheless, the available data indicate that the cost of development per capita decline sharply up to a population of between 5,000 and 10,000 persons.** For example, the costs of development per capita for Clinton Creek, a Yukon community of 500 persons, was estimated at $11,5000.00.*** For Leaf Rapids, Manitoba, with an anticipated population of 12,000, the costs of development were estimated at $7,400.00.**** For Thompson, Manitoba a complete set of cost figures were available for the years between 1958 and 1969. The per capita costs of development had declined to between $3,600 and $4,000 by the time that community reached 16,000-18,000 persons.***** In comparing these figures it must be kept in mind that historical cost figures incurred in developing Thompson would be much lower than those recorded for Leaf Rapids, for example, because of the rapid escalation of prices in the past six or seven years. Nevertheless, the differences are great enough to suggest rather sharply declining costs of development per capita up to perhaps 2,000 inhabitants and further important reductions to between

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*The list of items included in the calculations of costs may differ between communities. Costs are typically stated in current rather than constant dollar terms and some communities may be more isolated than others. All these differences distort the comparisons.

**Costs of development as used here refer to the capital costs of commercial, municipal, and residential facilities.

***R.B. James and D.M. Watson, Report on Northern Roads Meetings, Internal Report, Department of Energy, Mines and Resources. N.D.

****Data obtained from Leaf Rapids Development Corporation.

*****Hedlin-Menzies Associates, Thompson, Manitoba: An Historical Impact Analysis of Resource Development, Winnipeg, 1970.

5,000 and 10,000 persons.

Even less information is available on what size of city is optimum from a social perspective. Migration data, however may provide some clues. Rather extensive studies of migration flows in Canada have been conducted in recent years.* While the patterns are complex and unquestionably reflect economic as well as social considerations, cities of 100,000 or more in population stand out in most studies as the destination of well over half of those who move. More important perhaps is the fact that up to 75 percent of those persons moving intraprovincially from cities of between 30,000 and 100,000 inhabitants select as their destination places of 100,000 or more in population. As the nation becomes increasingly urbanized, this apparent preference for larger places will likely make it even more difficult to attract people to remote resource communities.

One observation from the migration studies which is pertinent to the question at hand is that people moving from farm and rural, non-farm locations select as their first preference small communities or rural, non-farm destinations. This implies that workers recruited from rural areas and very small centres adapt more easily to life in remote resource communities than persons recruited from larger cities.

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*See for example L.D. Stone, Migration in Canada: Some Regional Aspects (Ottawa: Statistics Canada, 1969), and M.V. George, Internal Migration in Canada (Ottawa: Statistics Canada, 1970). Migration patterns within Saskatchewan are analyzed by R.G. Beck and J.C. Stabler, Intraregional Migration Patterns in Saskatchewan (Saskatoon: University of Saskatchewan, 1974).

6. Economic Lifetime

Assuming that an orebody is economically attractive, the option of building a community would appear worthy of consideration if (a) the labour force were large enough to support a viable community and (b) if the estimated lifetime of the mine were long enough to insure that the resources committed to building the community would be used efficiently. Unfortunately, neither the size nor the time can be precisely defined.

With respect to size it has been suggested above that the costs of development per capita decline fairly rapidly as the community approaches a population of 2,000. With a basic to service employment ratio of approximately 1.0:1.0 and a population to labour force ratio of 2.5:1.0, a mine employing 400 workers would support a community of approximately 2,000 people. Such a community would be able to provide approximately 30 distinct commercial services, a hospital, general medical services, elementary and secondary schools, radio and television outlets, regularly scheduled transportation and a variety of recreational facilities.* Although more work is required on this topic, as an empirical generalization it appears that the minimum demand threshold is satisfied for the higher order facilities included in this list at a popluation of approximately 2,000 persons. With a smaller population either the higher order facilities are not provided and the community is less attractive or else they are not fully utilized and per capita costs are higher.

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*Studies of southern Prairie communities suggest that, on the average, the minimum-sized economically viable centre will provide the cluster of services identified here and will be of at least 1,000 in population but will serve a total market of approximately 2,000 including persons living in immediately adjacent rural areas. See J.C. Stabler and P.R. Williams, "The Changing Structure of the Central Place Hierarchy", Land Economics, XLIX (November, 1973), pp. 454-458, and J.C. Stabler and P.R. Williams, "The Dynamics of a System of Central Places:, Geographical Papers, No. 22, University of Reading, August, 1973.

The question of minimum lifetime is an even less clearly defined concept than that of minimum size. General support could probably be obtained for the proposition that a "permanent" community is an attractive alternative if size considerations are satisfied and the expected lifetime of the mine is greater than 25 years. On the other hand, few people would support a proposal to build a conventional community if the expected lifetime of the mine were less than ten years even if size considerations are satisfied. Regulations regarding capital cost allowances for income tax purposes may provide limited guidance in this matter. Conventionally, an allowance of ten percent per year of the remaining value of the asset is permitted on frame and corregated metal buildings used for commercial purposes while five percent is permitted on concrete, brick or other more durable buildings. Slightly more than 75 percent of the capital cost of frame structures would, therefore, be written off at the end of the 13th year while 26 years would be required in order to write off approximately 75 percent of a more durable structure. Although capital cost allowances are admittedly arbitrary, they clearly influence business practices and may in some vague sense reflect society's concept of the minimum economic lifetime of resources used in the manner under discussion.

It is also conventional practice for local governmental authorities to issue 20 year debentures to cover the cost of underground facilities such as sewer, storm-sewer, and water systems, as well as water and sewer treatment plants. Debentures sold to finance construction of surface facilities, such as streets and sidewalks, are usually issued for 10 years. Excluding treatment plants, costs for surface and underground facilities are approximately equal. When treatment plants are included, however, the cost of underground facilities and associated equipment would typically exceed the cost of surface facilities.

Within the context of these considerations it becomes apparent that, at least, a period of 15 to 20 years would be required to "write off" approximately 75 percent of the cost incurred in building a new community in the conventional manner. The exact period would depend on the durability of the structures and facilities. This suggests that when possible the non-permanent or commuting options should be given careful consideration if the expected lifetime of the mine is less than 15 years unless, of course, the community would also serve an additional purpose. The initial use of either of these options would not preclude the development of a more permanent community at a later date if the expected life of the mine were revised upward or new deposits were discovered. The "permanent" community clearly becomes an attractive option within the context of conventional tax and financial practices only as the anticipated life of the mine exceeds 20 years.

III. The Working and Living Environment

Numerous studies have been conducted individually of the "quality of life" in isolated communities, as perceived by their residents, and of working conditions as perceived by the workers in the mining industry in the north. Only infrequently is the "working-and-living environment" considered as an integrated topic for inquiry. In some respects the division has been unfortunate and may have in fact produced misleading implications. It would seem obvious that certain minimum aspirations regarding both living and working conditions have to be simultaneously satisfied in order to retain workers and their families in an isolated setting. From our discussions with workers, families, managers, and administrators, and in our review of previous studies, the impression was gained that residents of isolated communities hold certain basic expectations about both their jobs and the communities in which they live. These expectations include a complex mixture of economic and social factors and are reflected specifically in attitudes about what constitutes adequate or appropriate community characteristics including both physical facilities and opportunities for social and political interaction. Definite expectations are held not only about working conditions, rates of pay, and opportunities for advancement but also about recognition of the individual worker's importance in the total scheme of things.

In view of these expectations, it does not seem likely that the building of model communities would reduce labour turnover if at the same time working conditions are unsatisfactory. Nor is it likely that an improvement in working conditions alone would alleviate the problem if there is dissatisfaction with the community as a place to live. Rather what is required is a coordinated effort to insure that the total living and working environment meets certain basic expectations. Even then, satisfaction of these expectations may not produce overt satisfaction since they have almost come to be regarded as "rights". It is virtually certain, however, that failure to meet them will result in obvious dissatisfaction.

Working conditions vary, of course, from company to company and from one place to another. The same can be said with respect to living conditions from one community to the next. Nevertheless, a certain amount of generalization about expectations does seem warranted although specific expectations will undoubtedly vary in detail from one circumstance to the next as will the extent to which they are being realized.

1. Job Expectations

The prevailing view of both management and union officials in the mining industry appears to be that "the men" work only for "money, food, safety and a good time."* Jobs are structured accordingly. As a generalization, miners are well payed; the Canadian mining industry utilizes modern, efficient equipment; the industry has a good record for safety. Expectations regarding pay and physiological needs appear to be generally satisfied.

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*J.M. Cram, "Differential Need Satisfaction of Mine Workers in Northern Canada," Canadian Journal of Behavioral Science, 4 (2), 1972, pp. 135-145.

Yet there is a growing amount of evidence that job expectations include definite, and important, notions about what the job should provide in terms of recognition, self respect, and respect from others. Younger workers in particular also expect their jobs to be challenging and to provide opportunity for self-improvement. We are of the opinion that the expectations of people employed in the mining industry as skilled and unskilled labourers are generally not being satisfied in these respects.

The results of a survey conducted by Professor John Cram of McGill University are of interest in regard to this question. Interviews were held with 228 mine workers at five minesites in the Yukon and Northwest Territories. He concludes that expectations regarding physiological and security needs were generally satisfied but that,

> ....the results seem to indicate that workers "hurt" most in the areas of Esteem and Self-Actualization. Esteem fulfillment leading to feelings of recognition, self respect and respect from others is not being supplied and is desired. Self-Actualization needs of perceived self-improvement and challenge are being only partially met, yet are considered second in importance only to Physiological needs.
>
> . . .
>
> A worker who feels Esteem or Self-Actualization needs in an environment of this kind, cannot fulfill them on the job. Because of the extremely limited lifestyle possible in a mining camp, he cannot satisfy them in the normal, off the job, activities found in the outside world. His only recourse then is to quit his job and use the money he has saved (his stake) to "buy" higher order need gratification outside the Arctic. He spends his stake, and becomes one more figure in the statistics of high turnover in Northern mines.*

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* Ibid., pp. 143-144.

The results reported by Cram are consistent with our own observations. Further, personnel managers contacted in the course of this study, as well as those contacted in other contexts at different times, give the impression of not being particularly aware of, or of being insensitive to, workers expectations beyond pay, safety, and personal comfort.

The reader may recall that rates of turnover of the technical, management, and supervisory staff are considerably lower than those for skilled and unskilled labour as indicated in Chapter 2. Since both groups live in the same communities and work in the same industry, it might be surmised that the difference in turnover rates is explained by greater fulfillment in terms of esteem and self-actualization on the part of the technical, management, and supervisory personnel. In any event, it does not seem likely that the turnover rate of a young, mobile, and well-educated labour force in the mining industry will be reduced as long as a major difference exists between job expectations and realizations.

A second type of expectation that the mining industry will soon have to face is associated with the changing age-structure of the population and the increased participation rate of females. The high birth rates in Canada in the late 1940s and in the 1950s has led to a great influx of young people into the labour force during the late 1960s and through the middle 1970s. The percentage of people in the labour force under 24 years of age rose throughout this period. Declining birthrates during and after the late 1950s, however, has turned this situation around. The percentage of people in the labour force under 24 will decline for at least the next 20 years. Fifteen years from now approximately 85 percent of the labour force will be older than 24 years. This implies that the labour pool from which the mining industry draws its employees will be older and will probably contain a higher proportion of married persons.

While greater stability is associated with both age and marital status, the rising female participation rate implies that in the future more wives may want to work than are presently able to obtain employment in the remote communities. Since 51 percent of the jobs in the service sectors of those communities surveyed were held by women, compared to 43 percent in the same categories in Saskatchewan, it seems likely that most new jobs created for females will have to be provided by the mining industry. Competition for labour will probably not allow the mining industry a great deal of choice in this matter. Labour will have to be recruited from a pool consisting largely of married people and from locations where both the husband and wife are able to obtain employment. In our sample of remote communities, less than four percent of the labour force employed by mining companies was females. In a recent study of labour requirements in the mining industry, it was estimated that the number of jobs held by females may have to increase to between 20 and 25 percent in order for mining companies to be competitive in the labour market.*

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*O. Fisher, "The Labour Shortage in Mining," Paper presented at the annual meeting of the Canadian Institute of Mining and Metallurgy, Toronto, May 4-7, 1975.

In conclusion, we are of the opinion that mining companies generally need to devote considerably more attention to the psychological needs of skilled and unskilled workers employed in isolated settings. This should become an immediate concern. In the longer term, in order to remain competitive in the labour market, mining companies will probably be compelled to find positions for four or five times as many female workers as are currently being employed.

2. Community Expectations.

The major portion of this report deals directly or indirectly with the question of community expections and how these may be met through (a) the provision of adequate facilities and services; (b) the physical environment within which they are provided; and (c) the political-administrative framework within which the system functions. This section is, therefore, confined to a rather brief summary statement.

In order to attract and hold people, a resource community must provide a certain basic range of services and facilities. We have suggested in a preceding section that the minimum sized community capable of providing the commonly expected cluster of services and facilities in a remote setting, at reasonable cost, is in the range of 2,000 people.

Some indication of the rank order of importance of some key services and facilities may be obtained by reviewing the results of a survey taken of people living in Fort McMurray, Alberta in 1970.* Every fourth household in the community was interviewed and asked to complete a questionnaire, a part of which asked the respondent to identify two items out of a list of ten which were considered "most important in making life enjoyable in a community such as the one in which you now live."** The items, and the frequency with which they were named, are reproduced below.

TABLE 3-1

RESPONSES TO ITEM CONCERNING SERVICES AND FACILITIES IN A TYPICAL RESOURCE FRONTIER COMMUNITY

Service or Facility	Frequency
Entertainment and Recreation	152
Income Relative to Cost of Living	143
Housing and Accomodation	124
Good Access to Cities in the South	117
Working Conditions	88
Communications (Radio and T.V.)	68
Educational Facilities	67
Medical Facilities	52
Religious Facilities	13
Retail Facilities	7

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*J.S. Matthiasson, Resident Perceptions of the Quality of Life in Resource Frontier Communities (Winnipeg: Centre for Settlement Studies, University of Manitoba, 1970).

** Ibid., p.9

Matthiasson's interpretation of the responses to his questionnaire was as follows:

> It will be noticed that responses appear to cluster into three groups. Highest priority is given to entertainment and recreation facilities, and, rather surprisingly, lowest priority is given to retail facilities. Certain trends may be discovered on close examination of these clusters. It would appear that the average resident of a northern community--if we may generalize from our Fort McMurray sample--feels that his or her wants are most satisfied if entertainment facilities are available, real income is farily high, housing is good and there are frequent opportunities to visit cities in the south. Of secondary importance, but probably crucial if the first four factors are considered satisfactory, are working conditions, radio and television reception, schools and medical service. Of least importance are religious facilities and retail outlets. (It may be that retail facilities are not critical so long as there are regular opportunities for shopping in southern cities.)*

With respect to community design, we are unaware of any empirical research which has systematically attempted to determine either expectations or preference patterns of northern residents for one type of physical layout as opposed to another.

In expressing our own preference for designs like those followed in the development of Leaf Rapids, Manitoba, and Fermont, Quebec, we do so on the basis of functional convenience, efficiency, safety, and aesthetic appeal. These points are documented at various places in the remainder of the study. In our discussions with people who had visited or lived in both the traditional and the newer northern communities, preference was almost universally in favor of the new.

Residents of resource communities appear to be more involved in local affairs than people living in southern centres. The turnout for local elections tends to be higher than in the south as does active participation in voluntary associations.*

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* _Ibid._, p. 13.

Fortunately for those interested in participation in local affairs, the trend across Canada is to encourage resource communities to attain full municipal status as soon as possible. We believe that this can contribute to resident satisfaction with life in isolated settings. We would argue, however, that in order for local government to properly execute its responsibilities, it has to have an adequate and secure tax base. For this reason we believe that mining properties should be included within the local government district boundaries and should be subjected to property taxation at a reasonable rate.

As resident satisfaction increases, permanence of settlement becomes an issue. Only through increased personal participation in local affairs can the community organization be established, for example, to make housing available for people who may choose to retire in these communities.

IV. PLANNING CONSIDERATIONS

Given that economic and social circumstances dictate the need for a community, there are numerous technical factors that must be considered in the process of planning the townsite; first how much land is required;

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*J.S. Matthiasson, Resident Mobility in Resource Frontier Communities (Winnipeg: Centre for Settlement Studies, University of Manitoba, 1971), and P. Wichern, et. al., The Production and Testing of a Model of Political Development in Resource Frontier Communities (Winnipeg: Centre for Settlement Studies, University of Manitoba, 1971).

second, what constraints are imposed on the location by the economic activity which constitutes the raison d'être of the town; and third, what is good or attractive town design?

1. Land Requirements

In urban areas, land is required primarily for residential, commercial, industrial, and institutional uses and secondarily for parks and open space, and for transportation and utility services. The fact that these latter uses are termed secondary does not suggest that they are secondary in significance. Quite the contrary, they are in many respects as essential as the primary uses. They are secondary because the need for them is based on the existence of the primary uses.

Residential uses may include using land for both single family and multiple family dwellings. The proportions in which land is allocated to each depend on such factors as age, sex and marital characteristics of the occupants. The number of dwelling units required is, of course, a function of the projected number of households, which depends upon the labour force involved in the basic industry and in non-basic activities. This information can be translated into land area requirements.

The amount of land allocated for commercial purposes generally will be proportional to the population of the town, since the hinterland population will usually be negligible in isolated areas.

The allocation of land for industrial and institutional purposes will depend upon the intended function of the town. For example, if the town is to be a distribution center for other communities, land for warehousing, will have to be provided; similarly, if it is to be an administrative center, land will have to be allocated for government offices.

Land requirements for the secondary uses will depend essentially upon how the town is designed.

2. Criteria for Selecting a Townsite

Before a town can satisfy requirements of its basic economic activity, for example, a mining operation, it has to meet certain requirements regarding its physical location. First among these is the proximity of the place of residence to the place of work. For economic and social reasons, it is considered necessary to establish the community at a distance of not more than twenty-five road miles from the basic economic activity. In operations involving a mill, this distance should be reduced to less than ten miles; otherwise it is necessary to provide emergency maintenance staff quarters at the mill. A second requirement of a mining operation is that the townsite occupy land which does not have significant mining potential.

Some industrial activities including certain types of mining, are often characterized as "polluters." In many respects, this is an accurate characterization. Safeguards have to be devised against potential health hazards arising from the pollution of water by mining or milling operations. The hazards may be associated with water supplied for human consumption, water for recreational purposes, or even food supplies, such as fish, which are taken from polluted waters.

Many mining operations depend upon blasting, which not only produces noise pollution, but also vibrations which may be annoying or even dangerous. In order to avoid these undesirable effects the townsite should be at least three miles from blasting areas.

Air pollution is another common result of mining operations. Some forms of air pollution are essentially only a nuisance; others, like Radon Gas, which is associated with uranium mining, are potentially hazardous, depending on the concentration of the gas in the atmosphere. It is generally accepted that common doses of Radon Gas can be assimilated by the atmosphere fairly easily. Preferably a townsite should be selected which is windward from the mining operation, or at least three miles leeward from a possible source of a dangerous pollutant like Radon Gas.

From still another perspective open pit operations are particularly objectionable as a form of visual pollution.

Since all human life depends upon water, and since the transportation of large volumes of water is costly, it is essential that the townsite be located within reasonable distance of an adequate source of good quality water. Besides the need for water for human consumption, most mining communities, which are usually located in forested areas, need a large quantity of water for fire protection as well.

Since water has the capacity to assimilate waste, sewage is often disposed of in a body of water. Since sewage may be hazardous to health, measures have to be taken to ensure that the water supply will not be contaminated. Similarly, protection must be provided for swimming areas. Soil, like water, has capacity for assimilating sewage. Because of the remoteness of northern mining communities, it has often been decided just to dispose of sewage in an area that is topographically separate from the townsite and its related environs. Precautions have to be taken in sub-arctic and arctic locations to ensure that the environment, water or soil, has the capacity to assimilate the wastes that are disposed of.

Other desirable criteria in townsite selection involve topography, surficial geology, vegetation, and recreation potential. A site with some topographical variety is desirable from a design standpoint. Such variety allows visual separation of various of the town components, thereby achieving two objectives: undesirable views, such as an adjacent minesite, can be concealed, and desirable vistas can be emphasized.

The most desirable topography is moderately sloping. A grade of up to five percent affords good surface drainage while at the same time it alleviates the need for extensive grading of the site. Sites with steeper grades require progressively greater amounts of costly site grading to eliminate slopes that are too steep for normal flows of traffic.

Because of the sensitivity of most northern environments, it is essential to avoid disturbing natural conditions as much as possible. Site grading, for example, necessitates the removal of vegetation which will be very difficult to replace. This may lead to dust during dry seasons and to excessive slope erosion during runoff and rainy seasons. In extreme cases, grading could affect the micro-climate of the area.

The surfical geology should consist of soil that is well drained and has a water table depth of at least twelve feet. The most desirable soil is relatively dry and sandy. Deep organic soils and areas that are subject to flooding are the least desirable. In view of the problems that bedrock creates with respect to sewer and water servicing, there should not be any bedrock within twelve feet of the surface. This does not suggest that services cannot be installed in bedrock; they can, but it is costly.

Vegetation, another factor in site selection is desirable for wind protection, slope stabilization, and aesthetic appeal. Vegetative cover is variable, and some forms are preferable to others. The most desirable are mature, moderately dense stands of mixed deciduous trees, including birch and poplar, and coniferous trees, including white spruce and jack pine. At the other end of the scale, bog marsh, treed muskeg, and other forms of vegetation associated with organic terrain, are highly undesirable. At a micro level, many areas of the north contain a surface cover of lichen, locally referred to as "moose moss", which is very sensitive to disturbance. It is important to maintain this surface cover as much as possible. By retaining moisture at the surface, this cover reduces the problems of dust, provides moisture for shallow-rooted plants, contributes to a more desirable micro climate, and, to a degree, controls soil erosion. In addition, it adds an attractive colour to an otherwise relatively undifferentiated environment. The need for paying special attention to vegetation is emphasized by the facts that vegetation is very sensitive to disturbances and its regrowth period in the north is very long.

Since an isolation factor is generally associated with northern mining communities, it is essential to take maximum advantage of whatever compensating advantages the area has to offer. One feature that should be looked for is natural recreation potential. This may exist in the form of lakes or rivers for boating, fishing, and water skiing, hills or slopes for snow skiing, or trails for hiking, cross-country skiing, and snowmobiling.

3. Townsite Design

One of the most critical problems in the mining industry is the maintenance of a stable labour force. It has been found that a remote location, a factor common to most single enterprise communities across northern Canada, is in itself a serious deterrent to community stability. One possible means of diverting attention away from the isolation factor is through imaginative and attractive townsite design.

Two basic objectives in selecting a townsite which were alluded to in earlier sections, are to locate the townsite proximate to a prime amenity such as a lake or river, and to orientate the design of the town as much as possible towards that amenity. In order to achieve these objectives, the topography should have some relief and should generally slope toward the amenity. Besides affording opportunities for the development of vistas, the relief would provide good drainage. The general quality of the environment would be further enhanced by the presence of good vegetative cover. The vegetation protects the area from wind and at the same time, it adds aesthetic appeal and recreational potential.

Once a site has been selected according to the previously identified criteria, the town may be planned to satisfy certain basic economic and social objectives. The plan for development should incorporate flexibility in both concept and design in order to accomodate the staging of the town's development as well as the general dynamics of urbanization.

The plan for development should also encourage development of the social cohesiveness necessary to the establishment of a stable, permanent labour force. Success in this respect may be enhanced by a design that is particularly suited to both the site and the situation. Compactness, for example, minimizes walking distances and also results in efficient transportation and servicing systems.

Some special features should be incorporated in the design of northern communities in recognition of their climatic circumstances. Winters are very long; there is usually considerable accumulation of snow; and it is often very cold. The recreational potential of these conditions should be emphasized. For example, in adapting to the conditions of the northern environment, people often select the snowmobile as a recreational vehicle. At times, the snowmobile may also serve as a primary means of transportation. Consequently, the design of the community and adjacent area should include snowmobile trails.

Perhaps, at the micro scale, special provision should also be made for the storage of snowmobiles, particularly during the off-season period.

In a similar vein, cross-country skiing and snow-shoeing trails also emphasize the winter recreational potential of the community. As the popularity of these activities, both as a mode of personal transport and as a recreational activity increases, their inclusion in the design of the community may provide a significant attraction. In view of the potential conflicts, psychological and otherwise, between snowmobile users and cross-country skiers, it is essential that the two trail systems be separate from each other.

The extensive length and harshness of the winter period may also dictate the need for other special considerations in design. Commercial, recreational, and institutional facilities should be incorporated in a multi-purpose core, which should be climate-controlled. In situations where winds are strong and generally unidirectional, and where the design cannot incorporate a natural wind-break, it may be desirable to design part of the urban core as a wind-break.

In attempting to achieve an aesthetically attractive end-product, which encourages social interaction, efforts must be consciously directed towards effecting a compatible arrangement of land uses. The multi-purpose core should be the focal point of the community. It is essential to achieve not only a functional design, but also an aesthetically appealing structure. Safeguards must be devised to ensure that an undesirable mix of land uses does not detract from the attractiveness of the centre. For example, lands for light industrial and service-commercial uses should be excluded from the core; they should be physically separated from both the core area and the residential areas as well.

The residential areas of a community should be located on prime developable land immediately surrounding the central core. The subdivision designs for these areas should be based on a crescentic system of streets, which incorporates a hierarchical street system. This type of street system produces privacy and safety in local residential areas.

Both private and public housing should be available from the outset, and should consist of a wide range of types, including single family dwellings, duplexes, row houses, and apartment buildings, all carefully integrated in a comprehensive subdivision plan. Dwellings should be orientated towards the south as much as possible in order to maximize the available sunlight during the short days of long northern winters.

Since problems may arise from segregation by occupation, income, ethnic origin or other criteria, it is important to guard against the practice of providing housing for special groups.

To enhance the attractiveness of residential areas, variety should be provided in house designs, exterior finishes, and integrated colour schemes. An attractive extension of this idea is to design the housing and commercial core in a style and colour which suits the natural environment.

An important part of any residential area is plentiful park and playground space. Specific areas, some of them left in their natural state, should be retained for park and recreational purposes and to act as buffer strips along collector roads and between residential areas. The natural vegetation in many northern environments is more likely to survive if it is retained in large blocks or in clusters, rather than as single specimens. The major areas should be connected with each other and with other land areas used by the town by a system of pedestrian walkways. As an extension of this principle, the townsite may be set within a natural greenbelt, which is maintained as parkland and serves as a buffer against the mining and other industrial operations which may take place in the area adjacent to the townsite. Surrounding this greenbelt, or perhaps further from the town, a permanent fireguard should be developed and maintained as a protection against the forest fires which are common and very hazardous in northern areas.

CHAPTER 4

THE TRADITIONAL APPROACH TO NORTHERN COMMUNITY DEVELOPMENT: SCHEFFERVILLE, QUEBEC

I. THE DEVELOPMENT OF THE SCHEFFERVILLE REGION

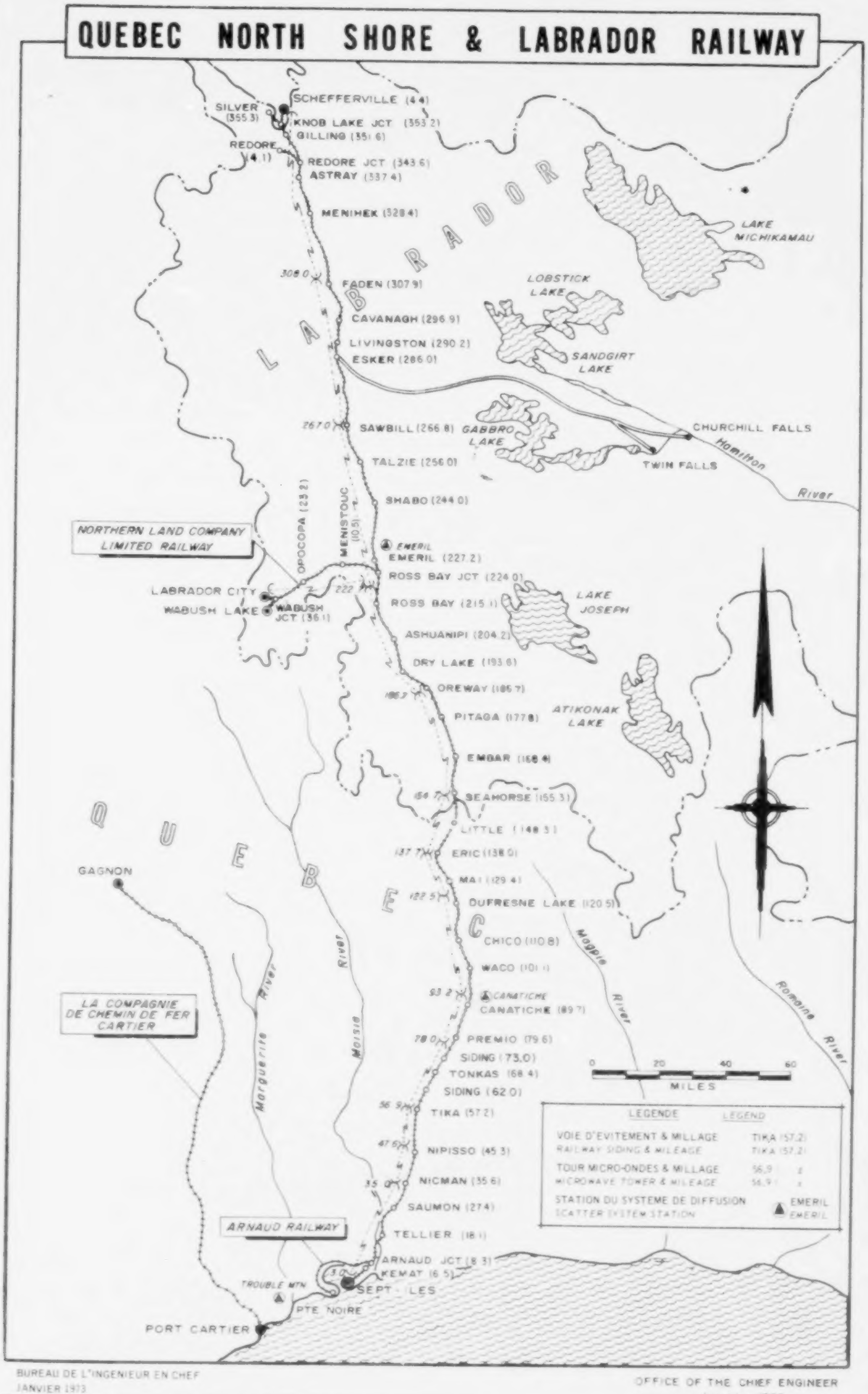
1. Background

Extensive iron ore deposits were known to exist for nearly a century in the range of hills which defines the border between Quebec and Labrador, but it was not until after World War II that any attempt was made to exploit them. The main obstacle to development was the extreme isolation of the region. To get the ore to markets, facilities had to be developed at the minesite; a port had to be developed in the Gulf of St. Lawrence; and a railroad had to be built to join the two.

In 1949 a number of American-owned companies joined together to form the Iron Ore Company of Canada (IOC) in order to accomplish these tasks. IOC had substantial land concessions in the Quebec-Labrador region and it chose to develop the first mine in the Knob Lake area in Quebec. The IOC-owned Quebec North Shore and Labrador Railway (QNS and LR) was built through the 357 mile stretch of wilderness between the minesite and the gulf. (See Figure 1). Work started in 1950 and was completed by 1954.

The Knob Lake mining facilities are limited to the extraction and crushing of the raw ore, which has an iron content of approximately 50 percent. This ore is shipped south to Sept-Illes, where it is loaded directly into ships from the IOC terminal facilities. Most of the ore is shipped to the United States. At Knob Lake, ore is produced for approximately 260 days per year. The rest of the season is spent stripping

FIGURE 1


QUEBEC NORTH SHORE & LABRADOR RAILWAY
SCHEFFERVILLE (4.4)
SILVER (355.3)
KNOB LAKE JCT (353.2)
GILLING (351.6)
REDORE (4.1)
REDORE JCT (343.6)
ASTRAY (337.4)
MENIHEK (328.4)
LABRADOR
LAKE MICHIKAMAU
308.0
FADEN (307.9)
LOBSTICK LAKE
CAVANAGH (296.9)
LIVINGSTON (290.2)
ESKER (286.0)
SANDGIRT LAKE
267.0
SAWBILL (266.8)
GABBRO LAKE
CHURCHILL FALLS
TWIN FALLS
Hamilton River
TALZIE (256.0)
SHABO (244.0)
OPOCOPA (23.2)
MENISTOUC (10.5)
NORTHERN LAND COMPANY LIMITED RAILWAY
EMERIL
EMERIL (227.2)
ROSS BAY JCT (224.0)
222
ROSS BAY (215.1)
LAKE JOSEPH
LABRADOR CITY
WABUSH LAKE
WABUSH JCT (36.1)
ASHUANIPI (204.2)
DRY LAKE (193.6)
186.2
OREWAY (185.7)
PITAGA (177.8)
ATIKONAK LAKE
EMGAR (168.4)
164.7
SEAHORSE (155.3)
LITTLE (148.3)
137.7
ERIC (138.0)
MAI (129.4)
122.5
DUFRESNE LAKE (120.5)
QUEBEC
GAGNON
CHICO (110.8)
Magpie River
WACO (101.1)
93.2
CANATICHE
CANATICHE (89.7)
Romaine River
LA COMPAGNIE DE CHEMIN DE FER CARTIER
Marguerite River
Moisie River
78.0
PREMIO (79.6)
SIDING (73.0)
TONKAS (68.4)
SIDING (62.0)
0 20 40 60
MILES
56.9
TIKA (57.2)
47.6
NIPISSO (45.3)
35.0
NICMAN (35.6)
SAUMON (27.4)
ARNAUD RAILWAY
TELLIER (18.1)
ARNAUD JCT (8.3)
3.0
KEMAT (6.5)
TROUBLE MTN
SEPT-ILES
PTE NOIRE
PORT CARTIER
LEGENDE LEGEND
VOIE D'EVITEMENT & MILLAGE TIKA (57.2)
RAILWAY SIDING & MILEAGE TIKA (57.2)
TOUR MICRO-ONDES & MILLAGE 56.9
MICROWAVE TOWER & MILEAGE 56.9
STATION DU SYSTEME DE DIFFUSION ▲ EMERIL
SCATTER SYSTEM STATION EMERIL

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JANVIER 1973

OFFICE OF THE CHIEF ENGINEER
January 1973

overburden from the open pit mines. Output from the Knob Lake mines has been fairly constant since it went into production in 1954, i.e. there have been no major expansions or contractions.

Transportation into and out of Schefferville is relatively difficult. Transportation by land is provided by the Quebec North Shore and Labrador Railway, which has bi-weekly passenger service to Sept Iles, 360 miles away, with the one-way trip taking twelve hours or longer, depending upon seasonal factors such as the weather. Air transportation is provided by Quebecair which has a daily flight into Schefferville Monday through Saturday, and the QNS and LR, Aviation Division, also owned by IOC, which offers free air transportation to Sept Illes or St. John's, Newfoundland, once a week for company personnel. Seats are allocated on the basis of job classification and seniority. There are no roads connecting Schefferville with southern Canada, a feature which is typical of many of the more remote communities in the north.

2. The Quebec Mining Towns Act

The Quebec government historically has followed a general policy of allowing mining and townsite development in the province to proceed with a minimum of direction or assistance by the provincial government.

In the development of the Quebec-Labrador iron belt the companies financed and built all the port facilities, the transportation links to the mining regions, the townsites, the infrastructure, and most community facilities. IOC, like most mining companies, got into the townsite development not by choice, but rather by necessity. When bringing a mine into production in an isolated area, it is necessary to provide mine employees with accommodations. If no government body is prepared to develop a town, the mining company has little choice but to build its own. Many "company towns" have originated in this way.

The Quebec Mining Towns Act specifies that mining towns in the province are to be governed by a five-man, appointed board of trustees. The board has the same powers as a regular local government. This legislation makes the election of a mayor and council compulsory after five years. The province has the right however, to prolong the term of the appointed board for more than the five year period. In the case of Schefferville, the mandate of the appointed board was extended one year at a time until 1967. In that year, the town elected a mayor and council for the first time. Thus, for the first thirteen years of its existence, the residents of Schefferville had virtually no responsibility for the direction of local affairs. Even then the change in local government structure may have been of little practical significance. The ability of the elected local government to initiate programs or control development is severely limited because the mining facilities adjacent to the town are not taxable. The financial problem of a small tax base was further complicated by the termination of systematic grants formerly made by IOC to the appointed local government.

In theory, then, the town has had local autonomy since 1967, but in fact, it has an insufficient tax base for the autonomy to be meaningful. In addition, since IOC is the major employer and owns or controls a major portion of the land and housing in Schefferville, company policies inevitably, if inadvertently, dominate the economic and political life of the community.

II. THE ECONOMIC BASE

As like most small northern communities, Schefferville exists for the purpose of performing a single activity. Beyond this major function, its economic base is extremely narrow. McGill University has established a small sub-arctic research station in the community, and a limited, elite tourist trade caters to sportsmen interested in fly-in hunting and fishing excursions. Earlier the town housed a fairly large RCAF contingent as a part of the Mid-Canada Defense Line. This function was abandoned, however, when the nation's needs changed.

The continued existence of the town is more likely than that of many northern communities. The known iron ore reserves of the immediate area are sufficient to sustain the current level of production until well into the next century under favorable economic circumstances. In addition, other iron mines have been developed in the general region. Approximately 150 miles south of Schefferville are the Wabush Lake and associated deposits. Continued exploration of the Quebec-Labrador iron belt may lead to additional discoveries within the more immediate vicinity of Schefferville. There is also the possibility that Schefferville may gain some diversification in the future, acting as a transshipment point for the James Bay hydro-electric development, but the extent of this involvement is as yet unknown.

III. THE PHYSICAL DEVELOPMENT OF SCHEFFERVILLE

1. The Site

The town is located between Knob Lake and Pearce Lake on relatively flat, well-drained land. (See Figure 2) This site was chosen primarily because the topography allowed the cost of servicing to be economical. As well, having two lakes adjacent to the town resolved the questions of water supply and sewage disposal, since the water supply is drawn from Knob Lake and sewage goes into Pearce Lake. The lakes also provide recreational and aesthetic potential.

The site chosen had several limitations and the town design accentuated rather than alleviated these limitations.

The town is virtually surrounded by undevelopable land. There are lakes immediately north and south of the townsite. The IOC mill and railway facilities lie to the west and the airport to the east. All new development is forced into the northeast part of the town where the land is low-lying and swampy, which makes servicing costs high. The shortage of good land is partially due to poor site selection, but also an inadequate town design placed the IOC facilities and the airport too close to the town as to allow expansion beyond its immediate requirements.

The open pit mines are approximately five miles from the townsite; therefore the community is not affected by the blasting nor the visual exposure of the mining operations. IOC crushing and railroad facilities are located immediately adjacent to the town on the west and some noise pollution carries over to the town.

FIGURE 2

1- Hôtel de Ville - Town Hall
2- Centre Commercial - Commercial Center
3- Centre Sportif - Sport Center
4- Centre Culturel - Cultural Center
5- Police
6- Aéroport - Airport
7- Hôpital - Hospital
8- Iron Ore
9- Gare Q.N.S. & L. Rly. Station
10- McGill
11- Ecoles & Eglises - Schools & Churches

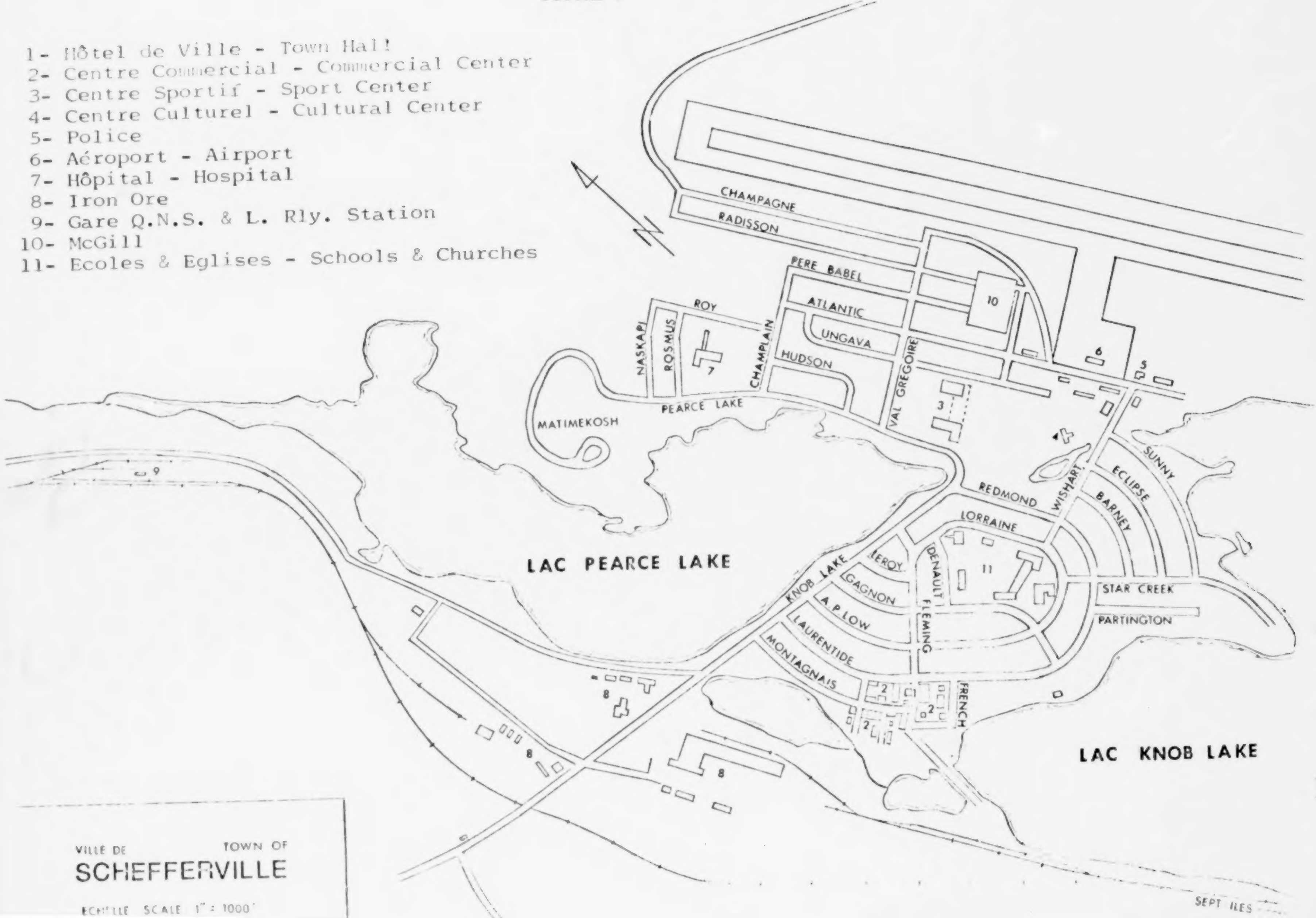
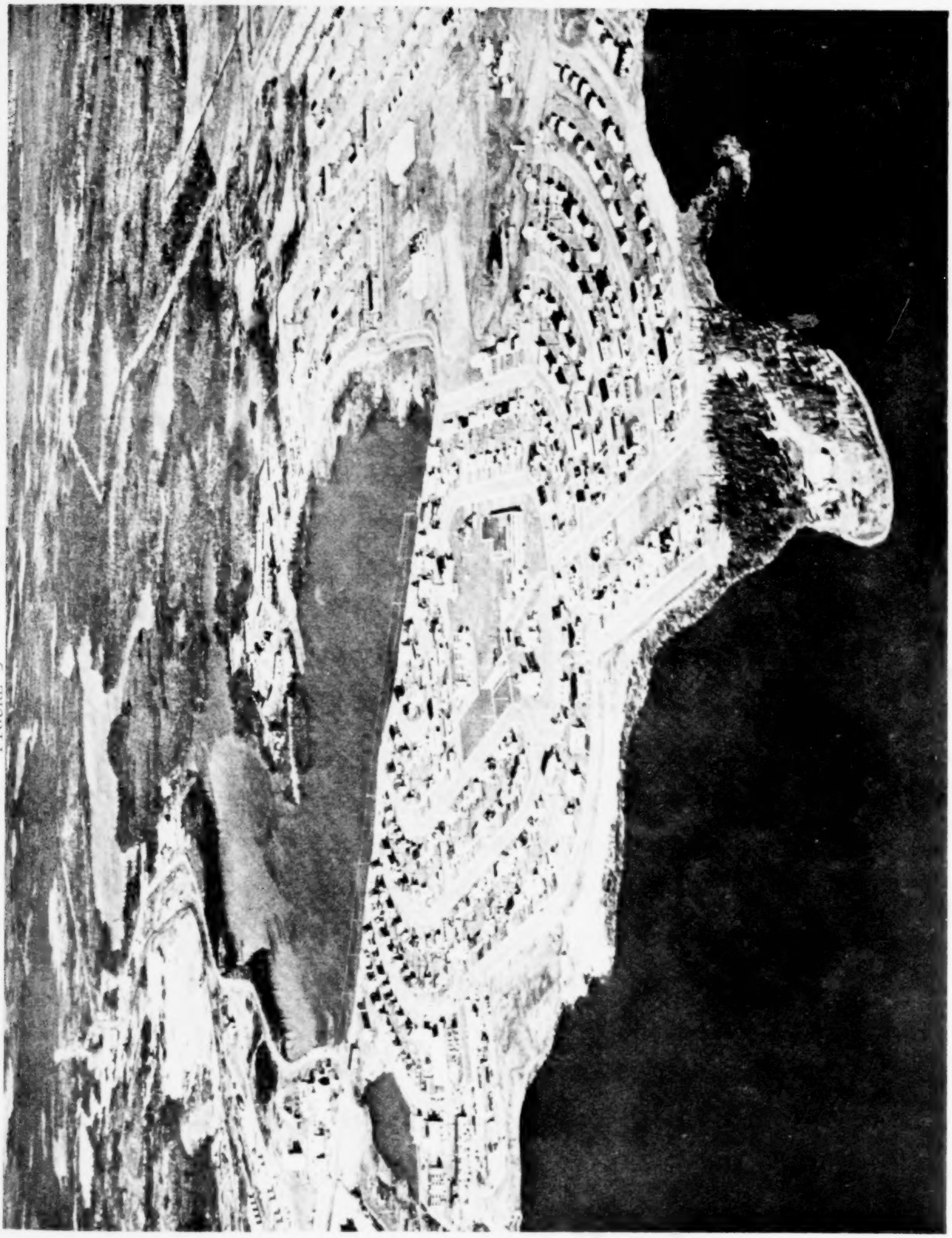

CHAMPAGNE
RADISSON
PERE BABEL
ATLANTIC
UNGAVA
HUDSON
ROY
NASKAPI
ROSMUS
CHAMPLAIN
VAL GREGOIRE
PEARCE LAKE
MATIMEKOSH
REDMOND
WISHART
SUNNY
ECLIPSE
BARNEY
LORRAINE
LEROY
DENAULT
FLEMING
GAGNON
A.P. LOW
LAURENTIDE
MONTAGNAIS
KNOB LAKE
STAR CREEK
PARTINGTON
FRENCH
LAC PEARCE LAKE
LAC KNOB LAKE
SEPT ILES
1
2
3
4
5
6
7
8
9
10
11
VILLE DE
TOWN OF
SCHEFFERVILLE
ECHELLE SCALE 1" : 1000'

FIGURE 3



1 *Aerial view of Schefferville – Vue aérienne de Schefferville*

The surrounding countryside is hilly and rocky. The vegetation is predominatly lichen woodland and bog in the lowlands and lichen heath on the ridges. A forest fire in 1946 destroyed much of the natural vegetation around the town and mine and because regrowth is so slow much barren rock is still exposed to view.

2. Town Design

The town of Schefferville was originally planned and laid out by the engineering department of IOC. Having no previous townsite design experience, and having an orientation towards engineering efficiency, the department designed a conventional town. (See Figures 3 and 4)

The town's commercial facilities were allowed to develop at a very low density over four city blocks. Despite the harsh winters, no attempt was made to group these facilities or to join them with some form of climate-controlled passageways. The schools and churches were grouped together on a central block which is relatively accessible from most of the town. All the town's recreational facilities are grouped together, also, in a relatively central part of town.

The first houses that were built were located around the central block of schools and churches. As the demand for housing grew, a small creek joining Pearce Lake and Knob Lake was filled in, and new single family housing was built to the north of the recreation area.

The street system in the older part of the town is basically circular, and in the newer part is basically grid. There is no obvious differentiation of streets according to the function that they serve.

That is, collector streets are no wider than local residential streets. There are numerous four-way intersections, which contribute to traffic problems, especially in the winter when snow is piled high on the street sides and limits visibility. No attempt was made to separate pedestrain and vehicular traffic, and it is not uncommon to see pedestrians walking in the streets even in the downtown area. The use of private automobiles is extensive. Future expansion was, apparently, not considered very likely at the time the town was built since the airport was located on high ground immediately adjacent to the town on the east, while the railroad and mill block expansion occurred on the west. Thus new development is pushed northeast where the land is low-lying and swampy.

3. The Provision of Services and Facilities

Schefferville has relatively well-developed commercial and community facilities for a town which has a population of 4,200. Because of its isolation, many services are provided which are unusual in a community of comparable size in the south.

There are three schools located in the same central block. One is a large, French-speaking, Catholic school, one a smaller, English-speaking, Catholic school, and the other an English-speaking Protestant school. All offer complete instruction for grades 1 to 12. The facilities, at present, are fully utilized. The schools are used by the Indian children from the adjacent reserve as well as by the children from the town. The

Montagnais children attend the Catholic school, and the Naskapi children go the Protestant school. The teachers are paid according to a provincial salary scale and receive no special compensation for living and working in an isolated community. The turnover rate is thus relatively high, sometimes interfering with the continuity of the educational programs.

There is a thirty-nine bed hospital in the town which is equipped to handle most common medical problems. Serious or unusual medical cases are flown out. There are usually two general practitioners and a large support staff at the hospital. Specialized medical services, such as those provided by optometrists and dentists, are offered to the community on a visitation basis. There is a small clinic located on the Indian reserve which provides minor medical services to the Indian population.

As mentioned above, the town's commercial facilities are spread out over four blocks. The Bay is the largest store and provides the widest selection of goods. There are other, smaller, more specialized establishments, such as a grocery store, a drug store, a clothing store, restaurants and lounges. There is also one drinking and dancing "brasserie."

Recreational and entertainment facilities include a theatre with movies in both French and English. There is also a recreation center with a swimming pool, a four-lane, 10-pin bowling alley, a gymnasium, a 3-sheet curling rink, conference rooms, a library, a skating arena, with artificial-ice, a cultural center with an exhibition hall, an arts and crafts room, a teenage club, a puppet theatre, and a photographic dark room. Outdoor facilities for baseball, soccer, tennis, and skiing and a playground are also provided.

The local government provides such municipal services as water, sewer, and electricity, as well as firefighting and police services. The RCMP also have an office in the town.

4. Housing

The original housing built in Schefferville was a mixture of quadraplexes, duplexes, and single-family, detached units. There is a limited variety in the designs of these houses. All are two-storey units with very similar floor plans. They were however, very well built. The newer housing units have all been single-family bungalows. Like the older houses, these units do not vary much in design. Unlike the older houses, however, they are said to be poorly constructed. Because of the lack of variety in house designs throughout the town, a special attempt has been made to vary the exterior coloring of the houses. As well as the houses, there are two apartment complexes which are privately owned and rented primarily to non-IOC employees. The town also has a trailer park, and there are bunkhouse facilities on the IOC industrial property.

As of 1974 the housing supply in Schefferville was:

750	family housing units (quadraplexes, duplexes, single-family units),
125	trailers,
125	bachelor apartments,
96	apartments (privately owned).

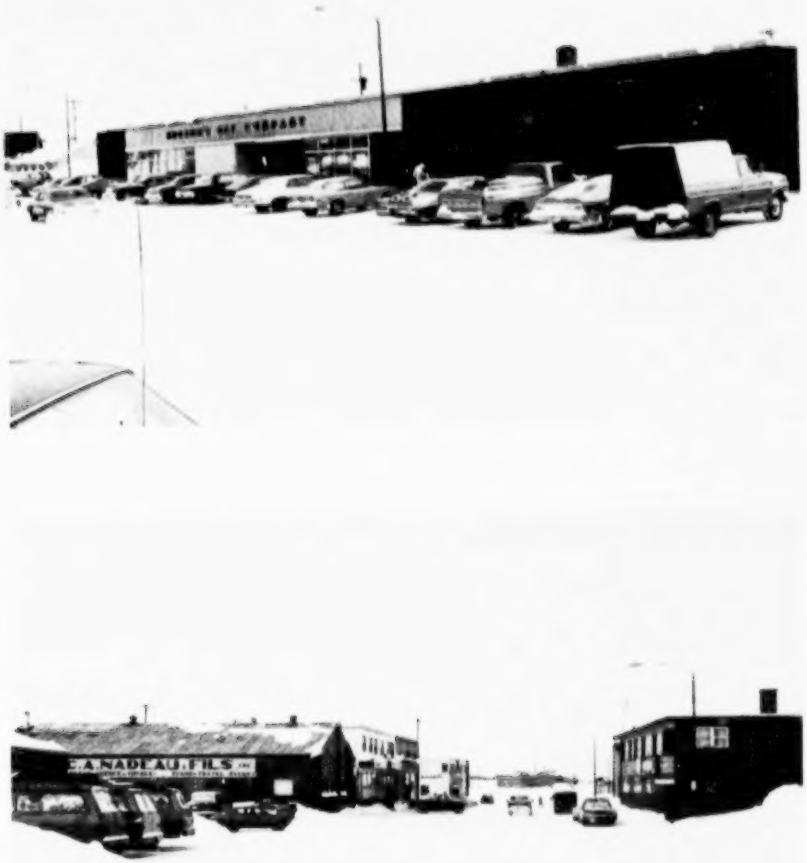
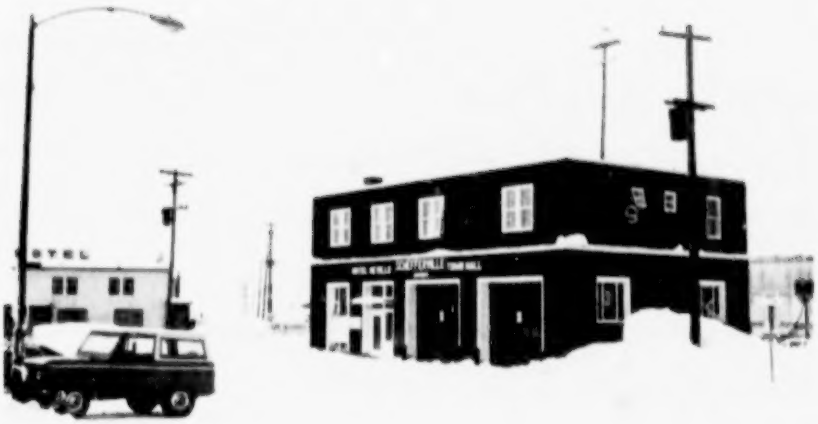


FIGURE 4

Two views of the main commercial area in Schefferville. The Bay is the largest store in town. The other, smaller establishments are spread out over a four block area.

FIGURE 5


OTEL
SCHEFFERVILLE
TOWN HALL

Schefferville's Town Hall and one of the town's two hotels.

The Protestant school on the left. The Catholic school on the right.

The majority of houses in the town are owned or controlled by IOC. It is difficult and expensive for non-company employees to obtain housing. Most companies believe that it is in their interest to maintain control over the housing supply in order to ensure that company employees have a place to live. At first, virtually all the houses were rented. Recently, however, the trend has turned towards selling the houses. This change was initiated in an effort to develop a greater commitment to the community and to provide a greater measure of stability.

Housing costs are subsidized for company employees. This subsidization comes in many forms, such as low rents, interest-free and/or low-interest loans, low total cost for a house, etc. The company encourages home ownership for its employees. It does not, however, want the houses to be resold to non-company personnel, and a buyback clause is commonly included in all of its mortgage agreements. This clause requires the employee to sell only to IOC for the first ten years. After ten years, the home owner can usually sell the house to whomever he wants, although some agreements give the company the first option to buy even after the ten year period. The sale price is determined by a formula which utilizes the original cost of the house minus depreciation. All monthly payments, i.e. rent, mortgage, insurance, taxes, etc., are deducted from the employee's paycheck.

The major complaint about housing is the difference in price and quality between the older and the newer houses. The newer houses are expensive, but are thought to be poorly constructed, whereas the older houses are less expensive, but are well-constructed.

In 1972, the Department of Indian Affairs and Northern Development financed the construction of a 107-unit housing development for the Indian population in Schefferville. Prior to 1972, the Indians lived in a "shacktown" about three miles away. The new housing is located immediately adjacent to the town and consists of four-and six-unit row houses, which are completely serviced. Little imagination is evident in the design of the Indian Affairs houses or of the neighborhood, and there was only a limited input by the Indians in the planning of the housing. Consequently, the housing is not well-suited to the needs of its inhabitants. Row housing is alien to the tribes' cultures. There was no space provided in the housing or in an adjacent area for activities such as the butchering of wild game. In terms of basic shelter, of course, the housing represents a distinct improvement over that which it replaced.

IV. THE SOCIAL DEVELOPMENT OF SCHEFFERVILLE

1. Native Involvement

Schefferville is the only community studied which has a substantial native population. Two Indian bands, the Montagnais and the Naskapi, relocated to Schefferville after it was created in 1954. The Montagnais and Naskapi speak different Cree dialects, but they can communicate with each other. The second language of the Montagnais is French, and they are of Roman Catholic faith. The second language for the Naskapi,

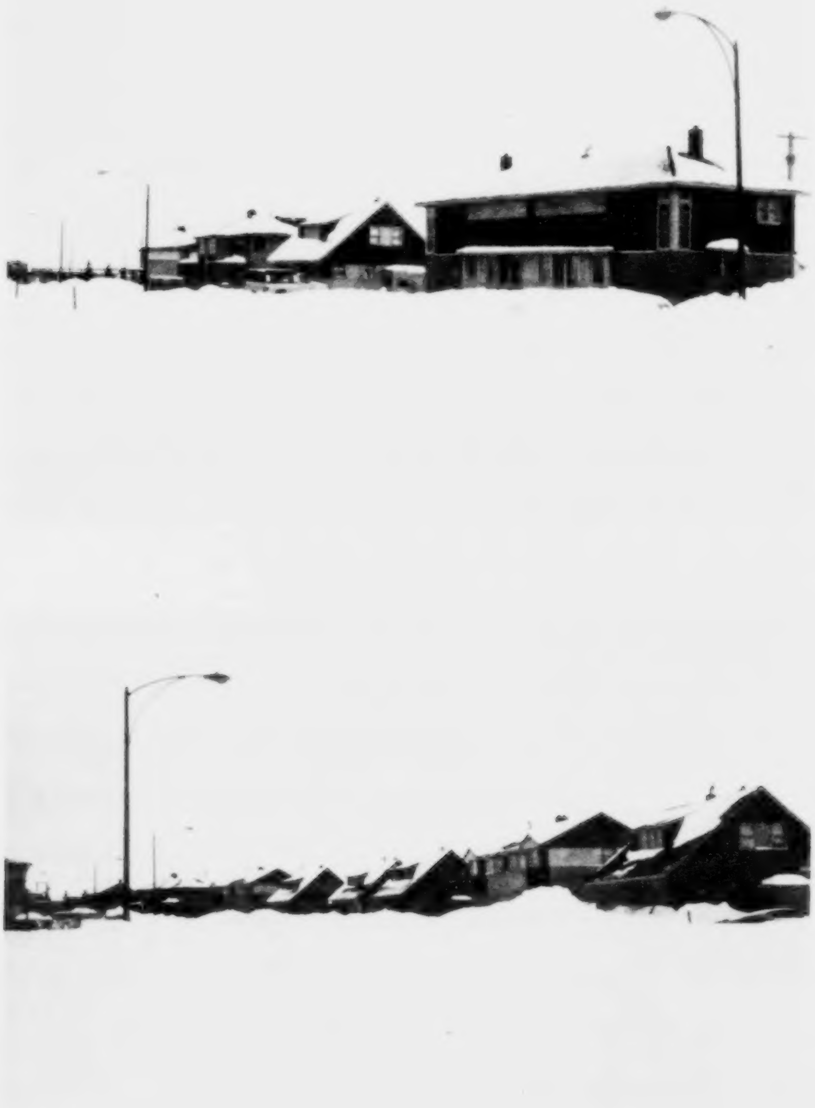


FIGURE 6

Two views of the housing in Schefferville. Note the similarity in style and the lack of landscaping. An attempt to create variety is made by painting the houses different colors.

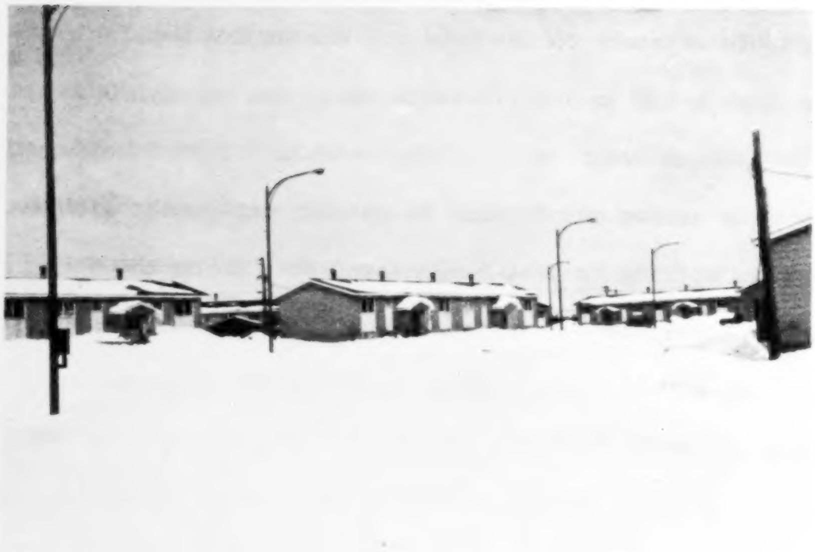


FIGURE 7

A view of one part of the 107-unit row housing built for the Montagnais and Naskapi Indians in 1972. Once again no landscaping and no variety.

who are Anglican, is English. These two bands developed a community at John Lake, 3 miles from Schefferville. It was more or less a shacktown. There were no water or sewer systems, and the houses were poorly constructed. In 1972, as indicated earlier, modern housing was provided immediately adjacent to the town for the native population. The total Indian population in Schefferville is approximately 800.

No special programs have been established in Schefferville to encourage and assist the Indians in gaining employment with IOC. The company is willing to hire Indians and does so on the same basis as any other applicant seeking employment. No special recognition is given to problems of adjustment which the Indians have when they try to become involved in "white man's industry" and "white man's society." These adjustment problems can be quite severe for the Indians at Schefferville, for neither tribe has been intensively exposed to the Euro-Canadian culture for very long. In fact, prior to being relocated to Schefferville, the Naskapi were referred to as one of the more primitive Indian groups in Canada because of their isolation. Despite the lack of special programs, IOC has proven to be receptive and understanding, and a large number of native people are permanently employed with the company. A few Indians have advanced to skilled jobs but the majority are employed at the lower-skill levels. The work habits of the Indians employed with IOC and other employers in the community have been described as generally good, but sometimes irregular, i.e. they work hard and do good work, but they might not show up for work for a week at a time without making advance arrangements for being absent.

The Indian population has been generally accepted in the community, although there definitely is some uneasiness between the native and non-native groups. This uneasiness is understandable because neither group really understands the other, and problems which develop are usually the result of cultural conflicts. Basically, the non-natives expect the Indian people to become integrated into the Euro-Canadian society, but the Indians do not fully comprehend the value system underlying this society. Regular workhours and the accumulation of wealth are alien to their culture. The extended family plays a major role in the native culture, but not in that of the southern Canadian. The Indians are further confused by the alterations in their previous lifestyle. Their traditional economic base is incapable of providing a rising standard of living for their growing population. Old customs do not have an unequivocal meaning in their present situation. Indians in Schefferville are typical of many Indian groups throughout the rest of Canada in the sense that they are experiencing a severe identity crisis. They have not integrated into the white culture, and they no longer have a viable culture of their own.

Satisfaction with life in a community such as Schefferville depends basically upon an individual's willingness and ability to adapt to isolation. Isolation is undoubtedly the single most important factor which residents in Schefferville have to deal with in order to enjoy their life in the community. Meaningful involvement in developing and managing community affairs is thought to be one method of fostering social development and well-being generally. In Schefferville full participation in this process was delayed until 1967 by the extension of control of the appointed local government. Even now a limited tax base constrains the scope of this involvement. Numerous recreational and creative outlets are also useful, and in this regard, the residents of Schefferville are more fortunate.

In terms of physical isolation, Schefferville is more than 500 miles from a major southern city, although it does have relatively good access to the "outside." Six days a week it is possible to get to Montreal in about two hours. Nevertheless, travel by air is expensive, especially if it involves moving a large family in and out of the community. The alternative is to take the inexpensive, but time-consuming train ride to Sept-Iles. Even when one gets to Sept-Iles, however, it is still a long way, by road, to the major cities in Quebec or the Maritimes. The absence of road access eliminates the possibility of people from Schefferville leaving town at their own convenience. They must depend upon the regularly scheduled forms of public or company transportation. In terms of psychological isolation, many of the residents of Schefferville perceive themselves to be highly isolated.

The traditional approach taken to combat the effects of isolation emphasizes monetary compensation. High wages have always been used to attract people to mining towns. At present, however, because of the demand for labor in the south, the difference in wage levels has been reduced. Inexpensive housing, recreational facilities, and low taxes are other methods used to attract labor to mining towns. IOC has excellent vacation benefits for its employees which, in effect, allow the individual and his family to get out of the community for relatively long periods of time each year. This relieves some of the stresses and tensions which may have been built up while living in the remote location. Other indirect forms of compensation are good training programs at the mine. Some workers stay in the community because of the experience and training that it provides. This experience will be valuable to the employee when he returns to the south.

Most northern communities have some long-term residents, of course. These are generally people who are satisfied with their particular job, love the outdoors, and appreciate a location in the wilderness. They are also attracted to small-town living which is generally uncomplicated and free of most of the stresses and worries that are typical of city life. In Schefferville, one can enjoy some of the positive aspects of an urban life, such as high wages and good recreational facilities, while at the same time avoiding the stresses associated with living in a major urban center. These people realize the possibility that the town will eventually be abandoned, and for the most part they think of "home" as being somewhere other than Schefferville. They are willing, however, to remain and enjoy it until the time comes when they do leave. Schefferville is still a young town. Only recently have the youth who were born and raised there married and settled in Schefferville. If the town survives for fifty more years, it will be "home" to more and more people, and its stability should increase.

CHAPTER 5

A NEW APPROACH TO NORTHERN COMMUNITY DEVELOPMENT: LEAF RAPIDS, MANITOBA

I. THE DEVELOPMENT OF LEAF RAPIDS

Sherritt Gordon Mines Limited has had experience in townsite development in its earlier mining operations at Sherridon and Lynn Lake. Both of these communities were completely planned, financed, and built by the company, and the communities were strongly influenced in the economic, social, and political spheres by the Company after they were built, a circumstance not unusual in single enterprise resource towns. Sherritt has, in fact, a reasonably good reputation for fairness in its company towns. When Sherritt presented its proposals to the Manitoba government for the creation of a new town at Leaf Rapids, however, the government stated that all planning and developing should be the responsibility of the province. This arrangement was adopted because it was felt that government planning would be able to minimize some of the negative social and political consequences that an isolated, single-industry town often exhibits. Negotiations between the province and Sherritt led to an agreement which was satisfactory to both parties.

1. The Agreement Between the Province and Sherritt Gordon Mines Limited

A few of the major points in the agreement are:

(a) A local government district, which included both the town and the minesite was created. This allows the mine property to be assessed and taxed on the same basis as all other property in the district, thus making the company a taxpayer.

(b) A crown corporation, Leaf Rapids Development Corporation (LRDC), was formed for the purpose of planning and developing the townsite in accordance with the provisions of the agreement.

(c) Responsibility for financing the capital costs of all buildings, equipment, and facilities which would be required in the town was allocated as follows:

  i) land sales pay for water distribution, sewage collection, gravel roads and drainage, sidewalks, and street and lane lighting.

  ii) local government general taxes pay for paving streets, the municipal office and firehall, the public works garage and equipment, the public safety equipment, and 20 percent of the hospital facilities.

  iii) the mining company pays for the water supply, the sewage disposal facilities, and all the recreational facilities.

  iv) the province pays for 80 percent of the hospital facilities and for the school.

(d) The company is responsible for informing LRDC as to the number of serviced lots required each year for housing. The company then purchases the lots and is responsible for providing the housing for its employees.

The agreement has proven to be generally acceptable to both parties. It has, however, a few minor faults. For example, there was no allowance made for planning costs, for the cost of temporary facilities, or for interim financing.

A more serious fault of the agreement is that one party was not given complete authority to develop the town. In the development bussiness, especially when time is limited, coordination of decision-making is extremely important, and this coordination is difficult to achieve when authority is not vested in one party. In the case of Leaf Rapids, lack of coordination was most evident in the development of housing. The agreement stipulated that LRDC should provide the serviced lots and that the company was responsible for building the houses. LRDC was not informed early enough in the year of the number of serviced lots required each year. This resulted in a chronic housing shortage for some time.

The use of a crown corporation to plan and develop the town has been generally shown to be extremely functional. The LRDC dealt with many government departments in the process of creating Leaf Rapids, e.g. the Department of Education, the Department of Highways, and the Department of Municipal Affairs. The LRDC was able to expedite the negotiations and transactions since the chairman of the Board of Directors of LRDC was a senior civil servant.

A major part of the agreement between the province and Sherritt was the inclusion of the minesite within the district boundaries thus making the company a taxpayer. Consequently, the Company is the major local tax contributor but has only one vote as to how the taxes should be spent. This was a significant departure from previous single-industry town experiences where the company usually paid a minimal amount of local taxes, but made grants at its discretion or constructed various facilities "for" the town. Thus, the local government, through having been given a substantial tax base, will be allowed to initiate and carry out programs without undue influence from the company.

2. The Leaf Rapids Development Corporation

The LRDC was formed in July, 1971, and was given the responsibility for the planning, development, and initial management of the new town. The corporation was formed as a subsidiary of the Manitoba Development Corporation (MDC). It was, however, given relative independence from its parent company. The MDC was used mainly to channel financing from the province to the LRDC.

The broad objectives of the LRDC were to: (1) maximize the wealth created by the development; (2) increase local, northern employment and manpower programs; (3) promote a multi-cultural town; (4) attempt to develop regional economic linkages; (5) avoid land speculation; (6) keep prices in line with other, similar communities; (7) foster environmental protection; (8) encourage local involvement in decision-making; and (9) provide consumer information about housing and town planning.

LRDC personnel preferred to adopt a primarily managerial function. All physical planning and development was done by private consultants. It was important to select a team that was able to work well as individuals as well as together as a group. The selection of consultants was also very important so that the goals of the LRDC were achieved. Emphasis was placed on innovative design within the context of the budgetary constraint.

The LRDC's job was to plan, survey, subdivide, service, and develop the Leaf Rapids townsite. It was initially responsible for operating all of the supportive facilities of the twon, e.g., the store, the hotel, the Post Office, etc. It gradually relinquished its authority over these functions, however, to the appropriate groups or persons. For example, when public buildings or facilities were completed, they were turned over to the appropriate government authority. When private individuals or companies indicated their willingness to take on the various services, the services were transferred to them, e.g., the Co-op took over the food store; the Hudson's Bay Company opened a general merchandise store; the Bank of Montreal opened a bank; and a private individual took over the taxi service. Briefly, the LRDC's job was to build the town, not to administer it after its creation. This approach was taken primarily to keep the LRDC from maintaining dominance in the community. All means of local self-government, such as a health board, a school board, and a local advisory board, were fully encougaged, with the ultimate goal of attaining municipal status as quickly as possible. The role of the LRDC in Leaf Rapids has gradually diminished, as it has transferred its functions to the permanent authorities. However, the LRDC still owns some of the land in the town, including the trailer court, the industrial land, the Town Center, and some residential lots. Until this land is turned over to the town, the LRDC will continue to play a role in its life.

The success of the LRDC can be attributed largely to capable administration. Because the management was efficient, the activities of the various consultants and contractors were effectively supervised. Consequently, the town was quickly built, is attractive, and the structures are of high quality.

One concern that was expressed was that insufficient time was allowed to create the town. The deadline of July 1, 1973, required that building proceed rapidly. The LRDC was formed in July, 1971, which left two years to plan and create a town in the wilderness, a rather short period of time. People were moving into the town before it was equipped to handle them. Thus, problems were created which could have been avoided if more time had been allocated for the building of the town.

3. The Local Government District (LGD)

The LGD of Leaf RApids was created by the Province in 1971. Its boundaries enclose an area of 617 square miles, including the twon of Leaf Rapids and the Ruttan minesite (See Figure 1). An administrator, who has complete authority over local government, was appointed by the Province. He worked closely with an advisory council which was first elected in the spring of 1972. This advisory council was to function only until a mayor and council could be elected.

It should be noted that the provincial planners put a great deal of emphasis on the rapid delegation of authority to the local government institutions, which included the school board and the health board as

FIGURE 1

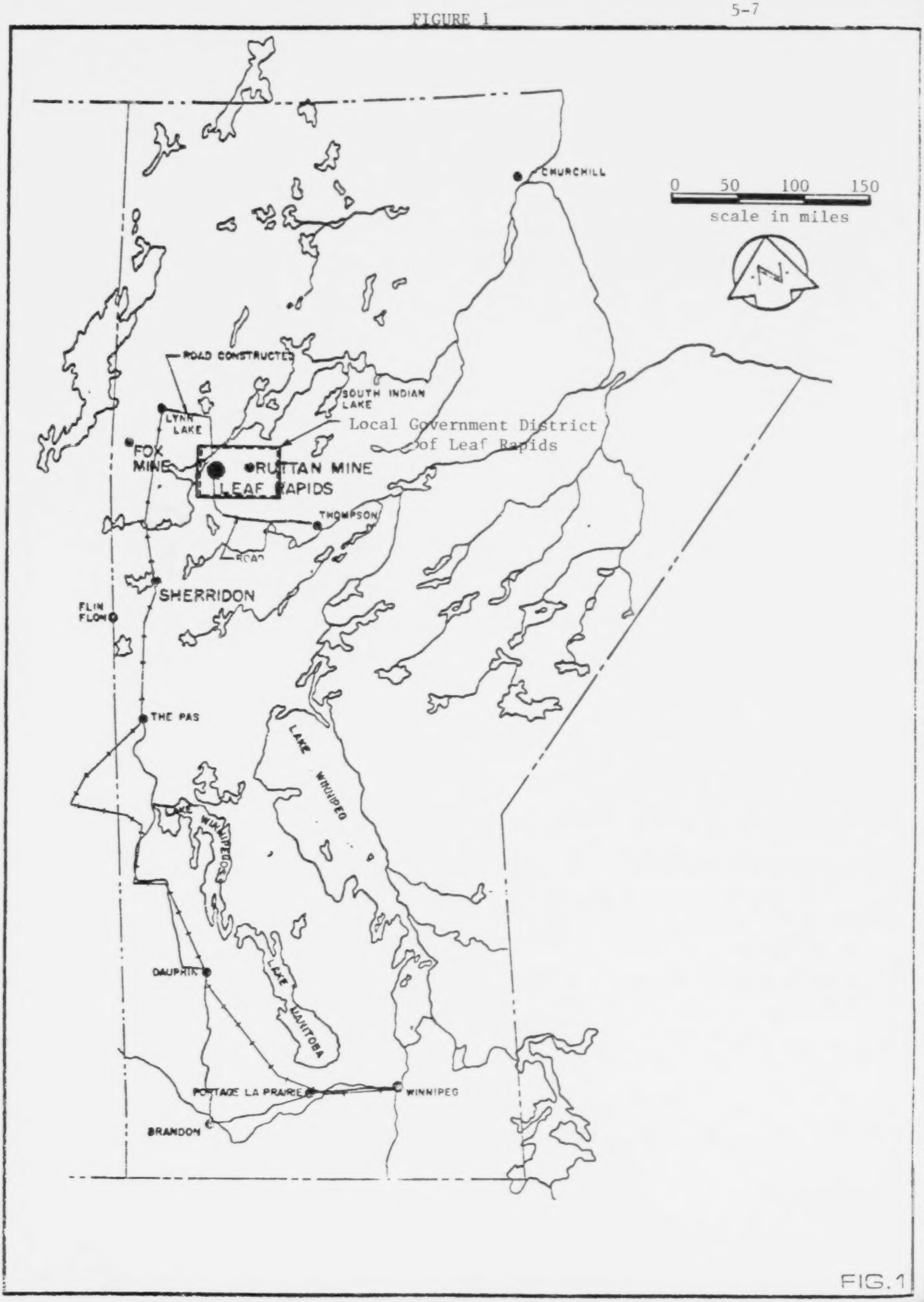

CHURCHILL
0 50 100 150
scale in miles
N
ROAD CONSTRUCTED
SOUTH INDIAN LAKE
LYNN LAKE
Local Government District of Leaf Rapids
FOX MINE
RUTTAN MINE
LEAF RAPIDS
THOMPSON
ROAD
SHERRIDON
FLIN FLON
THE PAS
LAKE WINNIPEG
LAKE WINNIPEGOSIS
DAUPHIN
LAKE MANITOBA
PORTAGE LA PRAIRIE
WINNIPEG
BRANDON

FIG. 1

well as the LGD. It was considered desirable to turn the authority over to them prematurely rather than belatedly, in order to avoid the possibility of a general feeling of apathy developing among the townspeople. In many single-industry towns, appointed administrators have been the rule, which has perhaps limited a personal commitment to the community. By quickly providing for self-government in Leaf Rapids, it is hoped that a sense of community and greater stability will evolve.

II. THE ECONOMIC BASE OF LEAF RAPIDS

The Ruttan Mine is the only major industry in the Leaf Rapids region. It employs approximately 500 persons. The mine is open pit at present, but operations may eventually be developed underground. The present population of Leaf Rapids is approximately 2,400. The potential for new mines in the general area is high. Thus the population of the town may eventually increase substantially. The Ruttan orebody has sufficient reserves to sustain normal operations for 18 years with an estimated 9-year supply of additional reserves. Thus the total life of the mine is estimated at 27 years.*

Diversified secondary industry is typically very limited in small northern communities. Without some form of subsidization, it simply is not feasible for industry to locate in such isolated communities. Even in Thompson and Flin-Flon, which are much larger communities than Leaf Rapids, development of secondary industry is limited almost exclusively to those serving the local community and mining industry.

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* Personal communication with Mac Riddell, Administrator of the Local Government District of Leaf Rapids.

The potential for tourism in the north is high, especially in the summer months. With improved access to the northern areas this potential increases. Leaf Rapids, with its location on the Churchill River, could benefit from an expanding tourist industry. The provincial government is presently studying the recreation potential of the area between Lynn Lake and Thompson in an attempt to develop some sort of regional recreation scheme. If something materializes, Leaf Rapids would undoubtedly benefit from this diversification. The success of this attempt at regional planning could significantly influence further development in the north.

III THE PHYSICAL DEVELOPMENT OF LEAF RAPIDS

1. The Site

The site was chosen by Sherritt Gordon Mines Limited before they made their initial proposal and was agreed upon by the government planners as the only suitable site within a reasonable commuting distance from the minesite (See Figure 1). The site selected is on a glacially formed gravel esker which is about six miles long. The Churchill River cuts across the esker two miles north of the site. The highway connecting Lynn Lake and Thompson is built on eskers. The area east of the highway and south of the road to the Ruttan mine was chosen, on the basis of subsurface conditions, as the best one for development. Future expansion of the town could utilize that portion of the ridge lying to the west of the highway. Drainage is generally good, with only a few limited areas of muskeg. The soil is sandy with few rock outcrops and only isolated areas of permafrost. A thin layer of moss and a good stand of coniferous and deciduous trees grow in the sandy soil. There is a little bush and undergrowth, which give a park-like appearance to the area.

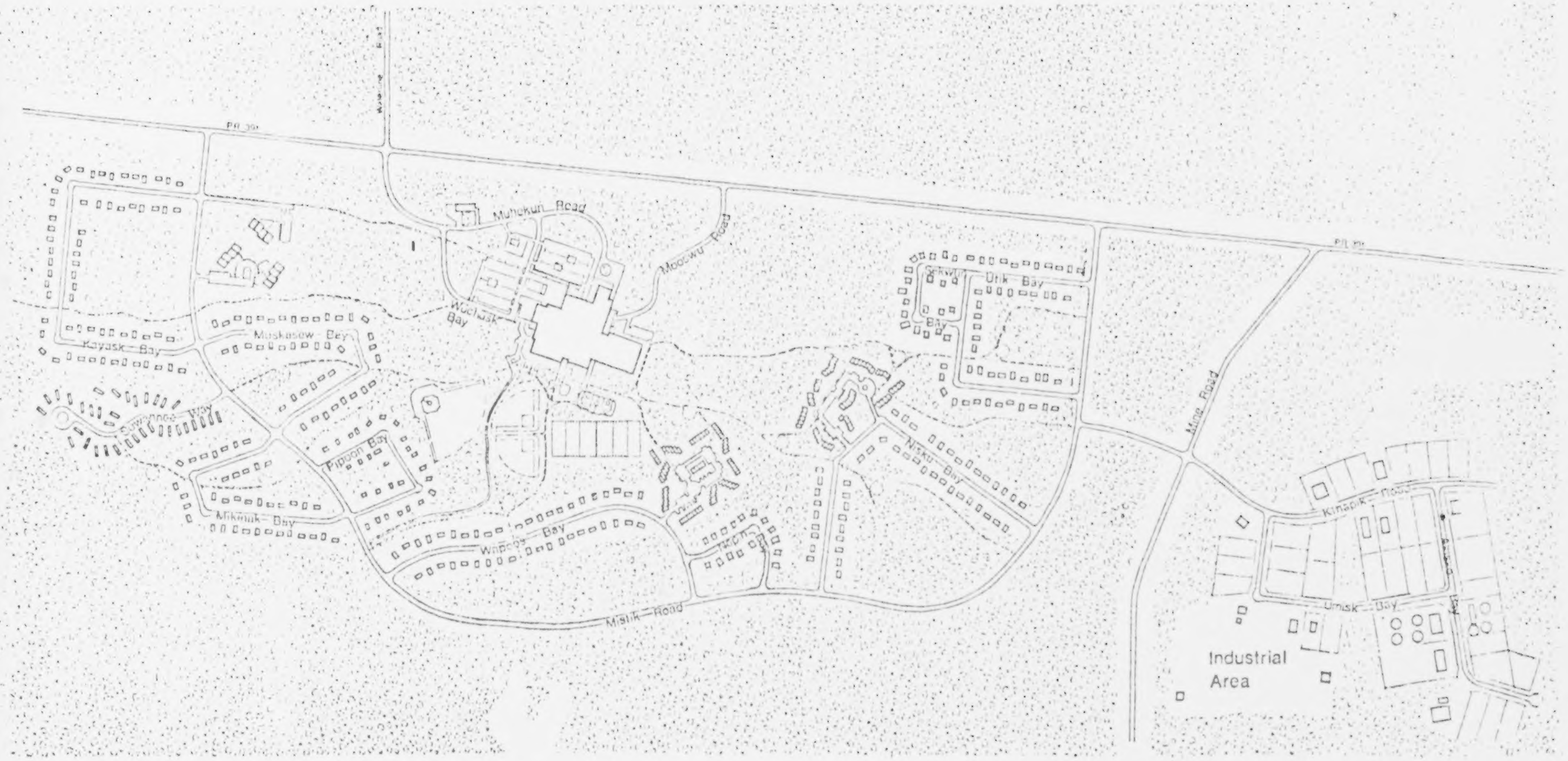
The distance from the townsite to the minesite is 17 miles, which is generally considered acceptable for commuting purposes. The townsite is only two miles by road from the Churchill River and is five miles by road from a lake which is suitable for recreation development. Water for the town is pumped one mile from the Churchill River and sewage is processed and discharged into a creek leading back to the Churchill River at a point six miles downstream from the water intake. The airport facility, with a gravel landing strip, is located on the opposite side of the Churchill River and is three miles from the townsite.

A railhead exists at Lynn Lake, which is 68 miles, by road, northwest of Leaf Rapids. The local major population center, Thompson, is 135 miles southeast of Leaf Rapids. The road between Lynn Lake and Thompson has been completed only within the past few years and has sometimes been impassable. It is being upgraded, however, and portions of it are now being paved.

2. The Town Design

The town was designed by Gary Hilderman and Associates, landscape architects and planners, in close consultation with W.L. Wardrop and Associates Ltd., who were the town's engineering design consultants. The objective was to maintain as much as possible of the site in its natural state. This necessitated taking special care not to damage the natural vegetation during construction of the roads, facilities, and buildings. In cases where lawns were desired to finish off the landscaping, soil and peat moss had to be brought into the community since the local soils were unsuitable.

The street system was carefully designed to provide adequately for traffic movement, as well as to make the installation and maintenance of services efficient. There is one collector road with no housing frontage. Off of this road, the residential bays are arranged so that one continuous water line can serve the whole town. (See Figure 2). The main advantage of this design is that heated water from the pumping station (the water temperature has to be raised about 5° year round) is allowed to circulate continually through the system to prevent freezing. The arrangement of the bays also permits gravity drainage of all sanitary sewers to the main sewage treatment plant without pumping being required. The storm drainage system is also a gravity system. The residential bays are arranged in a manner which avoids all rock outcrops or areas unsuitable for development, thereby minimizing the cost of installing services. The bays are all separated by areas of natural forest growth with a system of lighted pedestrian walkways passing through the public areas and joining the bays to each other


PR 391
Muhekun Road
Mooswu Road
Wochask Bay
Muskasew Bay
Kayask Bay
Suwannee Way
Pipoon Bay
Mikinak Bay
Wapoos Bay
Nipin
Mistik Road
Sekwun Bay
Utik Bay
Nisku Bay
Mine Road
Kinapik Road
Umisk Bay
Industrial Area

STAGE 1 SITE PLAN

and to the Town Center. The Town Center is no more than 10-15 minutes walking distance from any residential area. This layout of roads and walkways effectively separates pedestrian and vehicular traffic, a desirable feature not usually characteristic of single industry towns.

An industrial area is separated from the rest of the town. This area is designed and serviced to accommodate commercial and light industrial enterprises, e.g. bulk fuel depots, a local trucking contractor, a welding shop, etc.

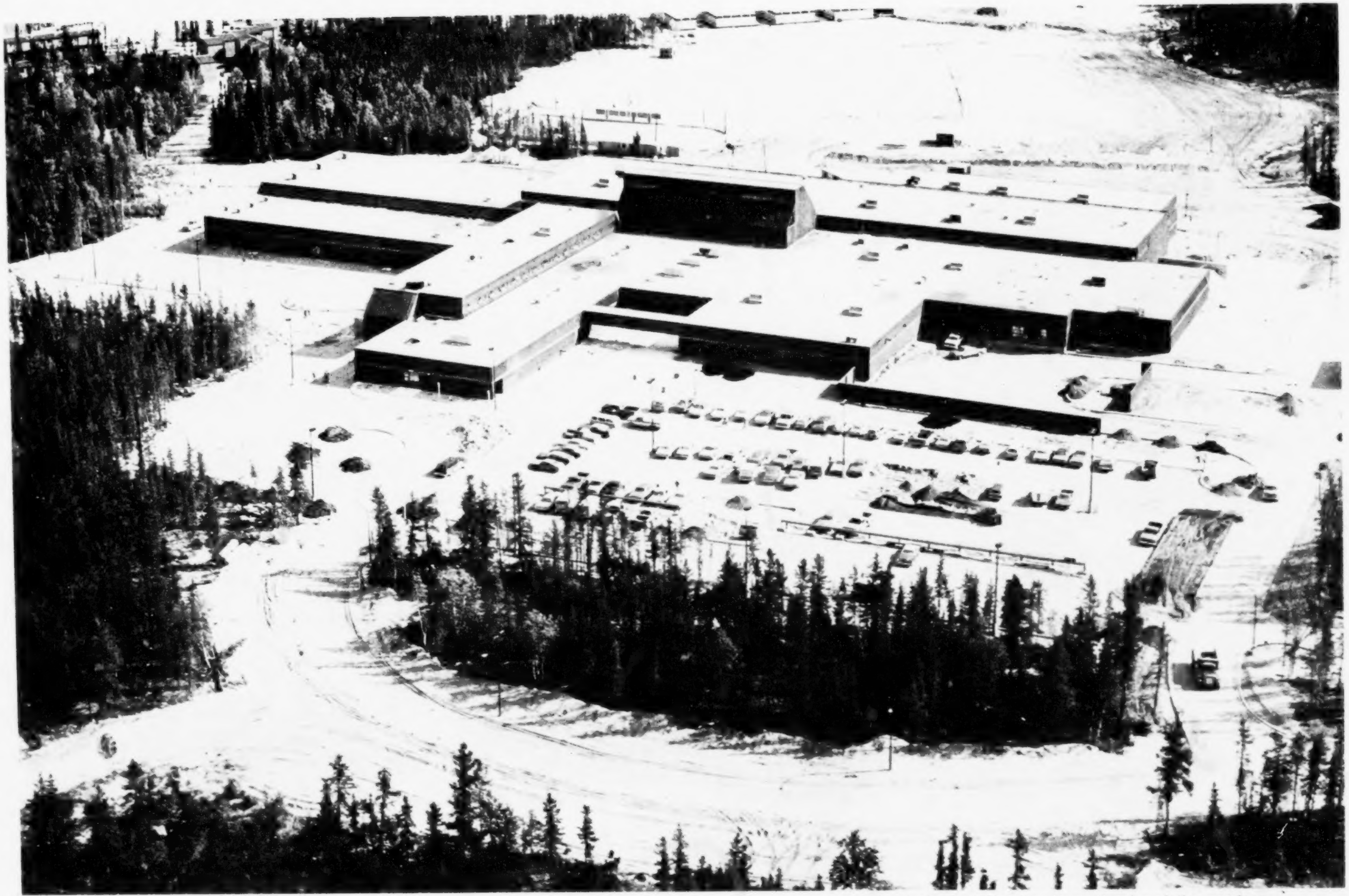
The existing town design and service facilities can accommodate up to 3,500 people with only minor additions and adjustments. If the town grows beyond this population level, major expansion of the town and its facilities would be required. Suitable land for future development is available on the west side of the highway and could accommodate a population of up to 12,000 people. Should this expansion prove necessary, the highway would be rerouted to the west to avoid a physical division of the town. It should be noted that at all times during the planning of the town, the design was made as flexible as possible to allow for future expansion.

The town design stresses centralization, with virtually all public facilities being provided in the town center complex. With this degree of centralization, it is hoped that the individual citizen will identify more strongly with the community, for if the town is to be socially viable, a strong sense of community must exist. Another way of utilizing town design in a way which encourages positive social relationships is to group the housing into neighborhood units, thus fostering personal ties between the individuals and families in the neighborhood in which they live. Although it is too early to accurately judge the success of the town design in creating a sense of community spirit and fostering stability in the town population, it is apparent that most of the residents are favorably impressed with its physical design.

3. The Town Center

The town center complex was designed by Leslie Stecheson and Associates, architects and interior designers. (See Figures 3,4, and 5) The objective was to provide facilities, under one roof, for virtually all the public services required in the town, and in doing so, to create a "heart" for the community. Having all the public facilities and services in one building is a somewhat radical departure from previous northern townsite developments. The logic behind it, however, is rather simple. First, one can engage in a variety of activities without being exposed to the harsh weather of the northern winters, e.g. one can go shopping, to a meeting or go curling without ever leaving the complex. Also, the cost of constructing and maintaining one large building is considerably lower than would be the cost for several smaller buildings. Perhaps the most important justification for a single-building town center is that the various facilities can be used to their maximum efficiency. For example, the school can use all of the community's recreational facilities, and the community, in turn, can use the school facilities during non-school hours. The school library and the public library are combined, yielding maximum service to both the school and the community. The hotel can supplement the hospital facilities,

FIGURE 3



An aerial view of the town center building. The building is planned in four quadrants, facing onto a cross-shaped mall, where all functions have interior "street" access. The central clerestory, located over the "Town Square" catches the south and west sun, bringing daylight into the interior. The exterior design of the building was purposely simple and restrained, emphasizing horizontal lines.

Parking space is provided in the foreground and to the right of the building. There are 331 stalls, 116 of which have electrical pluggings.

The open space behind the building has been developed for outdoor recreation, e.g. baseball, softball, football, soccer, tennis, and track.

Of interest are the temporary school facilities which are located on the far side of the recreation area. These buildings were utilized prior to the opening of the town center and have been removed since the picture was taken.

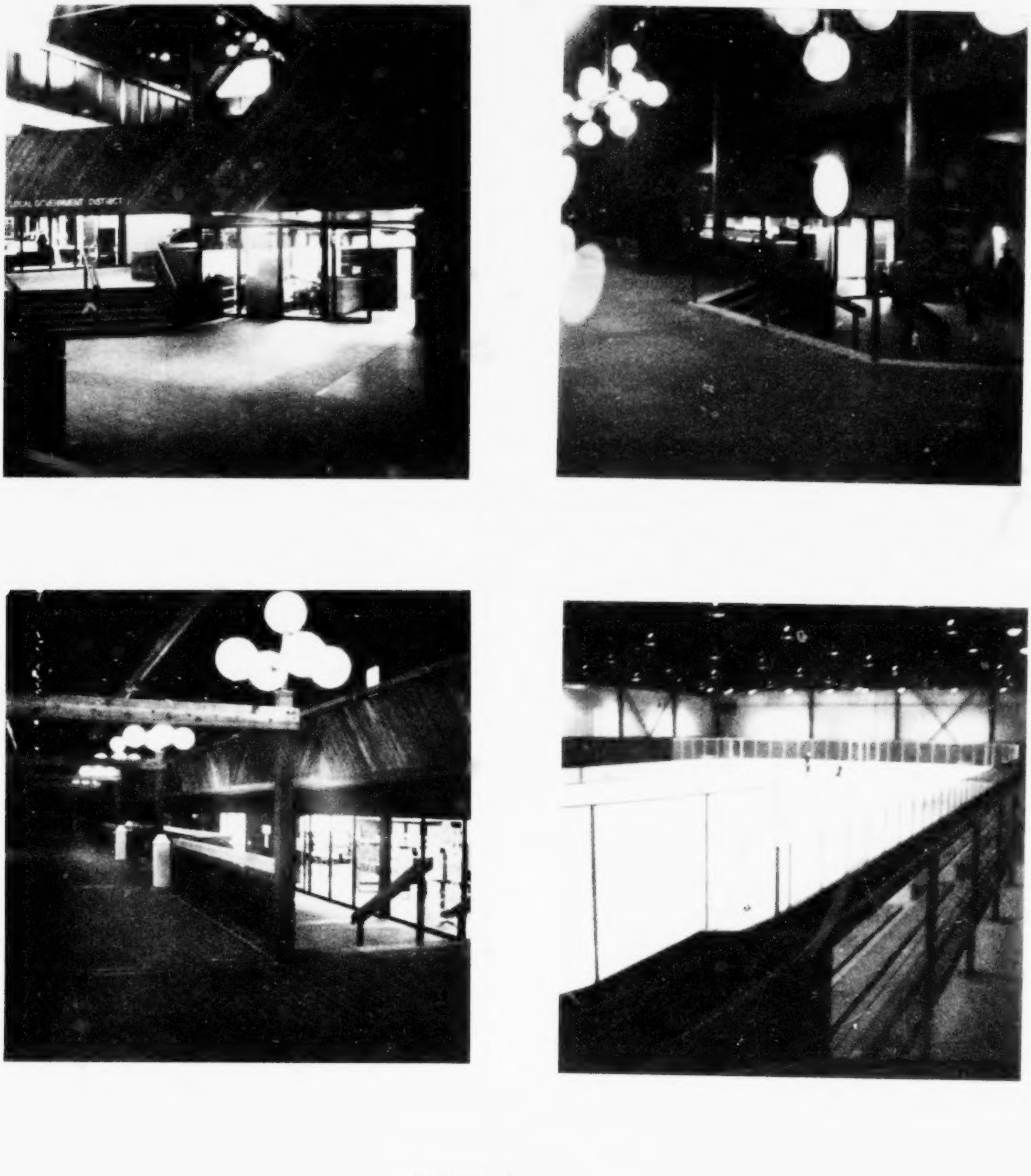
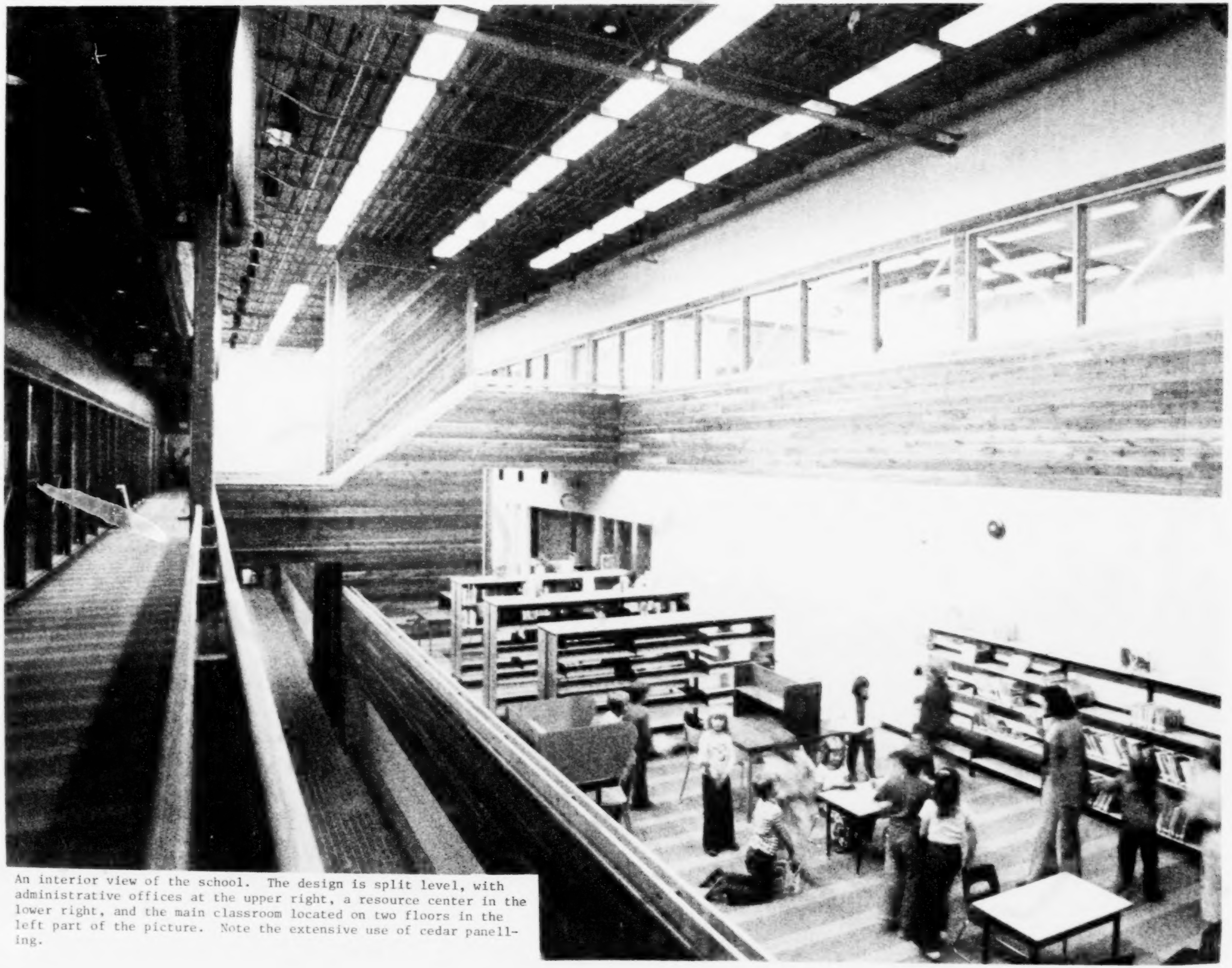


FIGURE 4

Views of the interior of the town center. Numbers 1 and 2 show the government offices located directly off the "Town Square" formed by the intersecting mall system. Number 3 shows the combined public and school library. Number 4 is the curling rink.

FIGURE 5



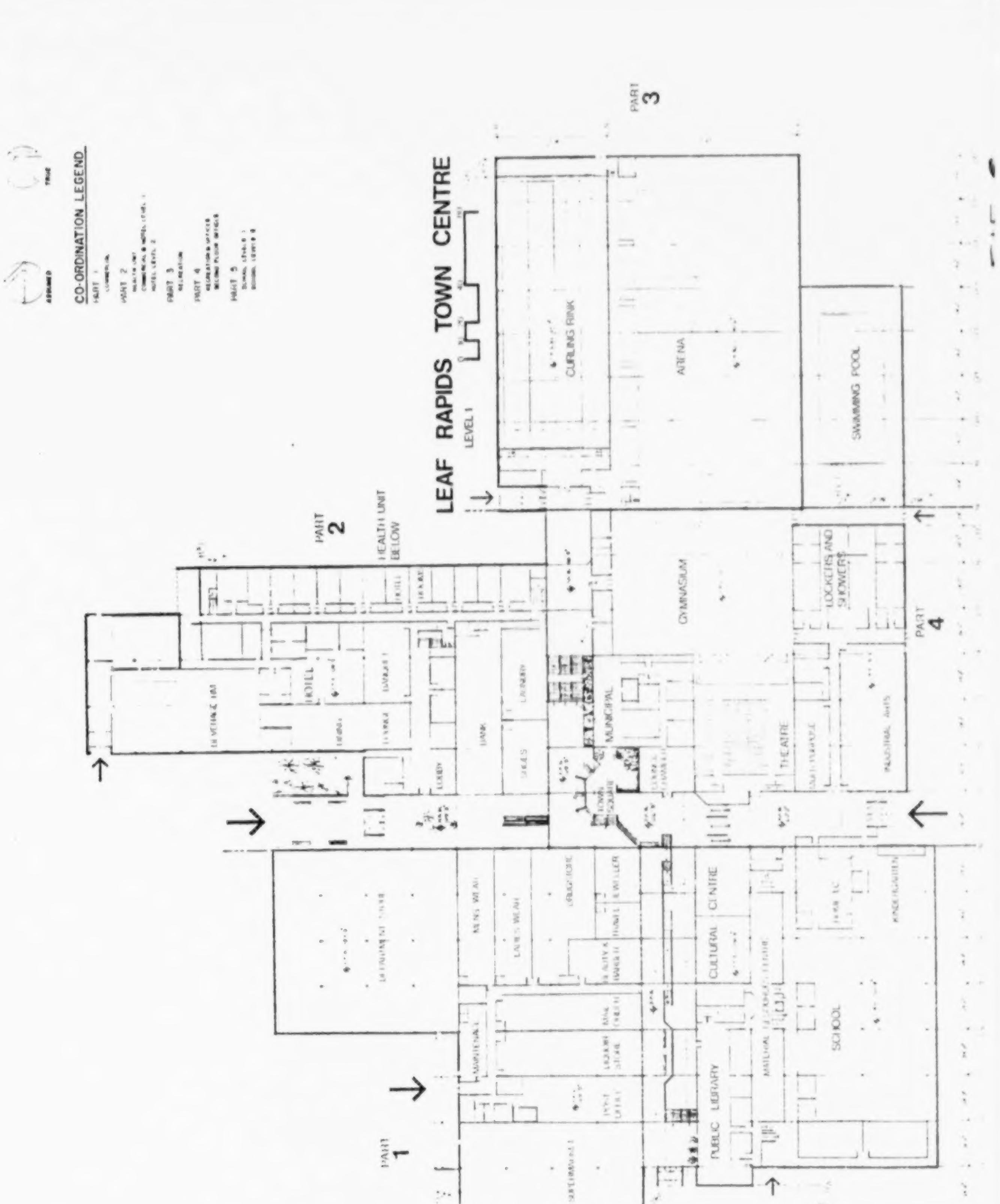
An interior view of the school. The design is split level, with administrative offices at the upper right, a resource center in the lower right, and the main classroom located on two floors in the left part of the picture. Note the extensive use of cedar panelling.

and the hotel restaurant can provide meals for the hospital's patients. The proximity of private and public organizations encourage cooperation and communication. (See Figures 6 and 7)

The space within the town center is allocated in the following manner:

recreation	45,062	square feet
municipal	3,500	" "
school	49,675	" "
medical	6,318	" "
commercial	37,868	" "
hotel	30,665	" "
provincial government	2,625	" "
health and social development	3,220	" "
post office	2,300	" "
federal government	825	" "
theatre	4,670	" "
electrical and telephone	3,125	" "
mall	20,900	" "
TOTAL	215,053	square feet

a) The school is designed for 625 students who range in grade from kindergarten to grade 12. It has only a few traditional classrooms which are used mainly for film presentations and for special courses. The majority of the classes are taught in partitioned-off portions of the two major floors. The grades from kindergarten to grade 4 are taught on the lower floor, while grades 5-12 are taught on the upper floor. The school has special


LEAF RAPIDS TOWN CENTRE
LEVEL 1
CO-ORDINATION LEGEND
PART 1
PART 2
PART 3
PART 4
PART 5
ASSUMED
TRUE
CURLING RINK
ARENA
SWIMMING POOL
GYMNASIUM
LOCKERS AND SHOWERS
INDUSTRIAL ARTS
THEATRE
MUNICIPAL
TOWN SQUARE
HEALTH UNIT BELOW
HOTEL
BEVERAGE ROOM
DINING
LOUNGE
LOBBY
BANK
LAUNDRY
SALES
DEPARTMENT STORE
MENS WEAR
LADIES WEAR
DRUGSTORE
JEWELLER
BEAUTY & BARBER
CULTURAL CENTRE
PUBLIC LIBRARY
SCHOOL
KINDERGARTEN
SUPERMARKET
POST OFFICE
LIQUOR STORE
HARDWARE

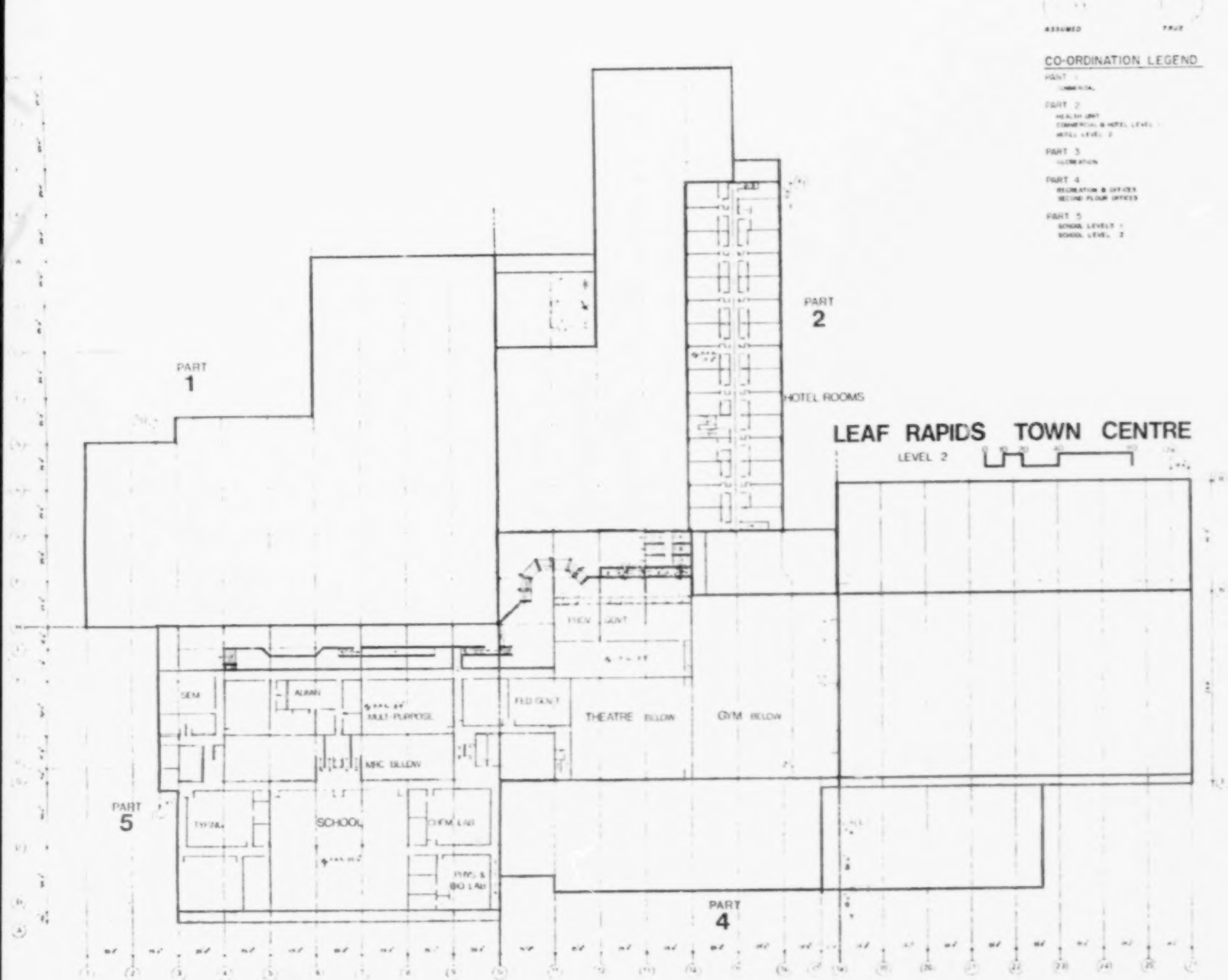

ASSUMED
TRUE
CO-ORDINATION LEGEND
PART 1
COMMERCIAL
PART 2
HEALTH UNIT
COMMERCIAL & HOTEL LEVEL 1
HOTEL LEVEL 2
PART 3
RECREATION
PART 4
RECREATION & OFFICES
SECOND FLOOR OFFICES
PART 5
SCHOOL LEVELS 1
SCHOOL LEVEL 2
LEAF RAPIDS TOWN CENTRE
LEVEL 2
0
10
20
40
PART 1
PART 2
HOTEL ROOMS
PART 3
PART 4
PART 5
PROV GOVT
FED GOVT
THEATRE BELOW
GYM BELOW
SEM
MULT-PURPOSE
MRC BELOW
TYPING
SCHOOL
CHEM LAB
PHYS & BIO LAB

FIG 7

facilities for home economics, business courses, and industrial training. All school facilities are open for use by the community.

b) The community health and social development center contains an eight-bed, primary care unit, emergency service facilities, and a social services office. There are presently three doctors working part time, two social workers, and more than twenty people on the nursing staff. By combining health and social services, it is hoped that a complementary program of physical, mental, and social health can be developed.

c) The 40-room hotel is complete with a restaurant, banquet rooms, a beverage room, and a cocktail lounge.

d) The recreational complex consists of an arena, a four-sheet curling rink, a full size gymnasium, a multi-purpose room, and shower and sauna facilities. Space for a swimming pool has been reserved, and piles for it have been sunk. An outdoor recreation area lies immediately adjacent to the town center, and consists of baseball and softball fields, a football-soccer field with a running track around it, tennis courts, and skating rink. Other recreational facilities for the town include a ski hill, a trap-shooting and rifle range, hiking and cross-country trails, and a lake with beach and picnic facilities. The use of motor boats is to be banned from this lake, thereby retaining its natural state. The Churchill River is immediately available, however, for those people who desire motor boat sports. Children's playgrounds are to be provided throughout the town. A full time recreation director is on the municipal staff and is in charge of both the adult and the school recreational programs. A full variety of programs is available, ranging from sporting activities to weaving or gourmet cooking. General comments from various citizens indicate that there are few additional recreational facilities or programs which could be desired.

e) The cultural area consists of a theatre, a library, and an exhibition center. The theatre is capable of showing live theatre performances as well as movies. It can accommodate a school assembly, multi-denominational church services, and touring symphony or ballet productions. The library serves both the school and the public, and is attempting to get as wide a range of books as possible. An exhibition center has been included in the town center to accommodate various local exhibits as well as those on tour or on loan.

f) The commercial area has a supermarket, a department store, a drug store, a coffee shop, a bank, various specialty stores, and business offices. A fairly common complaint among the town's citizens was that there was not a sufficient variety of stores available. They complained especially about the lack of an alternative bank. There is, of course, a limit to what a population of 2,400 people can support. While most common goods and services are available, more variety will be available in the future if the town grows in size. Prices are understandably somewhat higher than in the south.

g) The public office area consists of municipal offices and a council chamber, a post office, and offices for the various provincial and federal government agencies and departments.

Overall, the town center is a very impressive building both in concept and design. The internal environment is accented with cedar panelling. The weathering steel exterior builds up a rust layer which allows the building to blend into the natural environment. There is a small amount of opposition to the uni-building concept among the citizens. The biggest complaint is that the school children "hang out" in the mall area, and that the school and the beverage room should not be in the same building. To accommodate this last complaint, the beverage room is the only part of the complex which has no public entrance from the interior. Another general complaint about the town center is that there was not enough space allotted for some of the facilities. For example, the 40-room hotel is usually full, and the Hudson's Bay Company has had to rent the adjacent store for storage of its goods. Public acceptance of the town center, despite these minor complaints, has generally been enthusiastic, and the building serves as a lively and interesting community center.

4. Housing

Housing has probably been the least imaginative aspect of the development of the Leaf Rapids townsite. The initial agreement between the province and Sherritt was that the LRDC would develop and service the lots and that Sherritt would then build the houses or have them built. Full coordination between LRDC and the company was never achieved, however, with the occasional result that lots were not available for construction when needed, or that serviced lots went unused due to delays in housing construction. The limited construction season makes lack of coordination a serious problem.

The LRDC constructed the first 110 single-family houses in Leaf Rapids. (See Figure 8) These houses were of standard design, such as might be found in a recently completed subdivision in the South. They were well-built, however, and were completed in an acceptable length of time. Once built, they were sold to the mining company for resale to their employees.

The first attempt by Sherritt to contract the construction of single-family houses was not so fortunate. Many lots were completely cleared of all vegetation, even though natural landscaping could have been saved with a minimal effort. Some houses of unattractive design were constructed, and many were left uncompleted when the construction firm went bankrupt. Subsequent construction was of a more acceptable quality.

Most of the single-family houses are well constructed and are situated in a way which avoids through-traffic. Most of the neighborhoods are attractive. A variety of housing designs are present, and the way in which they are situated on the lot differs from one house to the next. Most of the neighborhoods are attractively landscaped. (See Figure 9)

The major criticism of the single-family dwellings in Leaf Rapids is that they were not explicitly designed to minimize the effect of the severe winter weather. For example, enclosed entryways would have minimized heat loss. Extra storage space could also have been provided for winter clothing and footwear. Attached garages would have protected the residents' automobiles and would have provided a sheltered entryway

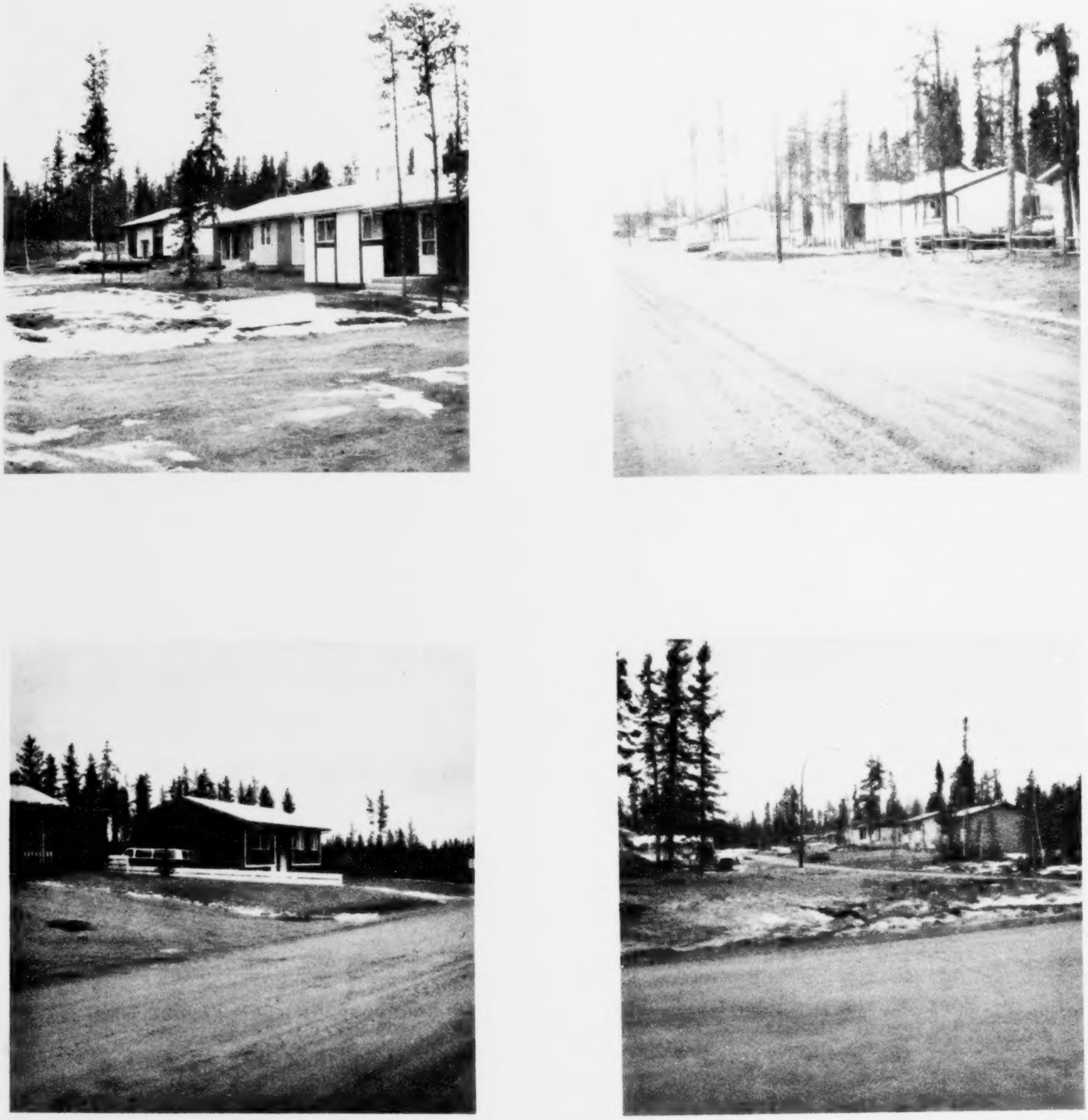


FIGURE 8

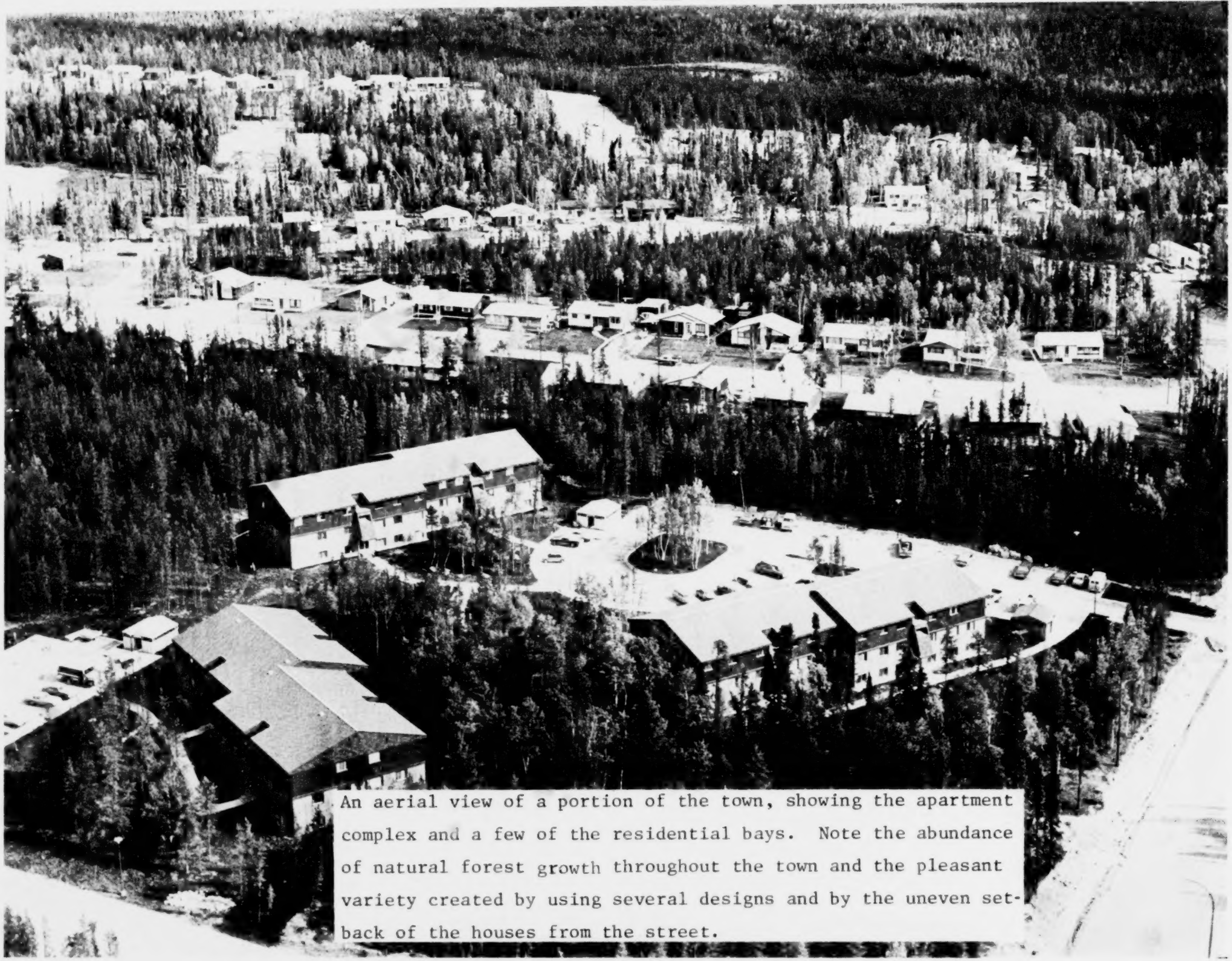
Housing built under LRC direction. The design of the houses is pleasant and varied. Natural vegetation was retained wherever possible.

as well. Some of these features were incorporated into the design of single-family dwellings recently constructed in Fermont, Quebec. Pictures of this type of housing are included with those of the single-family housing built at Leaf Rapids in order to illustrate an innovative alternative to what was actually done there. (See Figure 10)

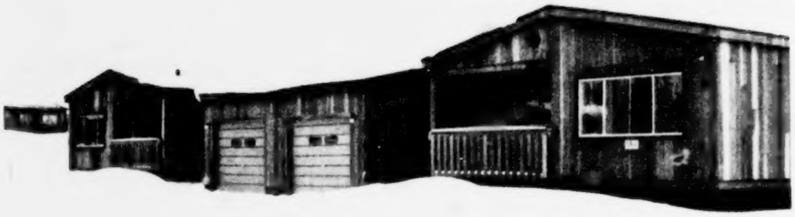
Townhouses in Leaf Rapids were well constructed, attractively situated, and of a pleasant design. In this respect, they show more imagination than was used in the design of the single-family dwellings. Here again, however, there are no garages or underground parking for automobiles. Also, the somewhat limited parking space around the townhouses could make snow removal difficult during periods of heavy snowfall.

Sherritt Gordon provides financial assistance to its employees who want to buy a single-family dwelling, although no assistance is provided for those who want rental accommodations. The two townhouse complexes (119 units) and one apartment complex (72 units), which were built for LRDC, are managed by the Manitoba Housing and Rehabilitation Corporation. The financial assistance offered to Sherritt employees who purchase single-family housing is in the form of an interest-free, $10,000, second mortgage. This second mortgage greatly assists those persons buying the houses. By owning the second mortgage, Sherritt effectively controls the supply of single-family housing in Leaf Rapids, since most people cannot afford to pay $10,000 cash to the company to obtain title. There are only about 6-8 single-family houses in Leaf Rapids which are privately owned. These are owned by large, financially secure organizations, such as the Hudson's Bay Company, the Catholic Church

FIGURE 9



An aerial view of a portion of the town, showing the apartment complex and a few of the residential bays. Note the abundance of natural forest growth throughout the town and the pleasant variety created by using several designs and by the uneven setback of the houses from the street.



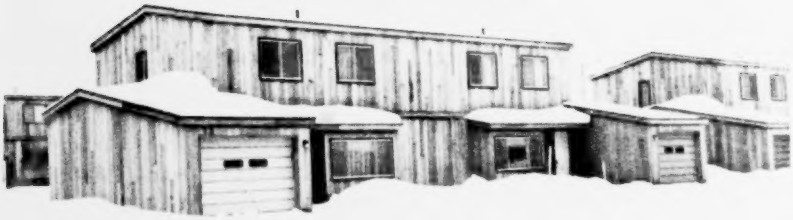


FIGURE 10

Housing in Fermont, Quebec represents an imaginative attempt to maintain privacy, yet increase density and provide protection from the harsh winter weather. In the top photo, two bungalows have been attached at the garages. A duplex with attached garages and enclosed entryways is shown in the bottom photo. An attempt to fit the housing into the natural environment has been made by utilizing wood siding and natural color.

etc. The opportunity for service industry employees to get a house in Leaf Rapids has, up to now, been very limited. Lately, rather than selling all serviced lots to Sherritt Gordon, LRC has reserved about 20 percent of the lots for private development.

Housing supply in Leaf Rapids, as of December, 1973, was:

218	single-family detached houses
63	duplexes
119	townhouses
36	2-bedroom apartments
36	1-bedroom apartments
35	trailers

5. The Cost of the Leaf Rapids Development

The total cost of the project is in the range of $30 million. The largest single expenditure, $10 million was made on the town center and the public safety building, which houses the firehall, the police station, and their parking lots and landscaping. Another $7 million financed the infrastructure, i.e. the water works, the sewer system, the streets, the outdoor recreational facilities, and various other public works. Housing cost an additional $12 million, and an estimated $2 million was spent on industrial development. Other costs were incurred in administration and in special projects. The majority of the cost is to be recovered through land sales, property rentals, home mortgages, local government district debenture issues (to be retired over a period of 20 years by annual payments through local taxation), Sherritt funding for recreational facilities and for water and sewer facilities, provincial government funding for the school and hospital, and the standard provincial and federal grant programs. The total provincial investment in the town was about $7 million of which approximately $4 million will be repaid through the issuing of debentures.

IV. THE SOCIAL DEVELOPMENT OF LEAF RAPIDS

The consensus of opinion among those people involved in the development of Leaf Rapids is that social development has lagged behind physical development. This is to be expected since physical development is a prerequisite which must be achieved before social development can proceed. The achievement of social goals requires at least a minimum level of stability in the community, and generally this stability was simply not present in Leaf Rapids due to the great diversification of population and the high rate of labor turnover in the early stages of development. Once the town has been completed, dissatisfaction with facilities will typically decline as will population turnover. With increasing stability, the town can expect social programs to be much more successful than would have been the case in the earlier stages of development. It would be overly optimistic, however, to hope that the social development of small northern communities will ever reach a stage equal to that achieved in a long-established, southern town or city. The saying that "you can build a model town but you cannot populate it with model people" applies in the north as well as in the south.

Social cohesion is now being promoted through provision of the numerous cultural and recreational facilities and programs which are provided or conducted in the town center, itself designed to promote maximum community interaction. Local independent self-government is also expected to make a major contribution to promoting an identification with the community.

1. Community Involvement in Planning

The extent of community involvement in the planning of Leaf Rapids was somewhat limited due mainly to the fact that the town had to be planned before the majority of the people moved in. Any attempt at obtaining community input, however, met the additional problem of the high rate of turnover in the town. For example, in planning the school facilities, the designer consulted the school principal. The present principal, however, is the third successor to the original one and each principal has had different ideas as to what should be included in the school's design. A similar situation exists with the hotel, where the present manager is the fourth in three years. With this type of turnover, input by individuals who are already in the community is limited. Thus, the planners and designers were forced to depend upon other sources to decide what type of town and what type of facilities were needed.

The town is basically southern-oriented in the sense that it was built to satisfy southern values. This is probably justifiable since most of the town's population comes from the south and will probably return to the south when they leave the town. Despite being planned on southern values, however, the town does fit in very well with the natural environment of the north. There is really nothing which is planned into the town, however, which will make it easier for northerners, especially the native population, to adjust to the lifestyle of a single-industry town.

2. Native Involvement in the Community

In May, 1972, the Ta-wow project was initiated by Sherritt and the provincial government for the special purpose of recruiting, employing, training, and retraining northern residents for the Sherritt Mine at Ruttan Lake. The project is guaranteed 13 entry positions at the mine for its clients. If an individual can progress upward to a more skillful job, the entry position is left open to the next individual who is recruited by the Ta-wow personnel. A more basic training program is utilized for the Ta-wow clients than for non-native employees, and an attempt is made to orient the southerners among the mine staff to the special needs and problems of the Ta-wow employees.

The Ta-wow project's approach to native recruitment is basically information-oriented. A video-tape on the life in the mine and the community and an information booklet explaining what facilities are available in the town and what financial conditions can be expected has been prepared for natives who are interested in working in the mine and in living in Leaf Rapids. This information is provided to each nearby native community, and those individuals who express an interest in obtaining employment are given as much detailed information as possible. Thus, each family is provided with basic information before making a decision. If the native family decides to move into Leaf Rapids, intensive counselling services are provided, both on the job and in the home in order to ease the problems created by relocation. Financial assistance, usually through the normal channels of the health and welfare department, is provided to ensure that the families are properly housed, fed, clothed, and equipped. This financial assistance is gradually withdrawn as the family becomes more self-sufficient and adjusts to life in the new community.

The major problem encountered thus far in the implementation of this project has been the lack of housing for the native people. Single-family dwellings have not always been available, and the native families have had to move into townhouses or apartments. This type of housing has proven less acceptable than single-family dwellings, because in most cases, the non-native neighbors do not understand the native culture and are intolerant of any unusual behavior. For example, it is common for relatives to visit the native family for extended periods of time, and during these visits, drinking and partying goes on. This is disturbing to neighbors living on the other side of the wall. It may also create difficulties for the native employee at the mine. This is, however, a fundamental aspect of the Indian culture. It is thought that single-family dwellings might ease this problem somewhat, and to this end, single-family houses are now being provided specifically for the native clients of the Ta-wow project.

It is too early to judge the success of the project. Several native families live in Leaf Rapids, however, and the rate of turnover of the native labour force has been below that for all other employees.

3. Involvement of Women in the Community

One of the major reasons commonly given for high turnover rates in the single-industry towns is that the wives become dissatisfied because there are fewer challenging or creative outlets for them than for their husbands. In Leaf Rapids, a deliberate effort has been made to meet this problem. Sherritt has employed women in numerous job categories. The service industries employ a portion of the women of the community, and a day-care facility is available for those who require this type of service. Besides employment, women have access to a great variety of recreational and entertainment facilities.

CHAPTER SIX

SUMMARY AND CONCLUSIONS

1. Relatively young people populated the northern communities surveyed. Eighty-eight point three percent of their inhabitants were under 45 years of age, and in fact, 57.2 percent were under 25. For Saskatchewan, the respective percentages were 69.4 and 47.9. The population of the northern communities is concentrated in the age-groups 20-44 years and 0-14 years that is, it consists primarily of young workers and their dependents.

2. Families in the communities surveyed tended to be larger than families in Saskatchewan. For the province, 36 percent of the census families consisted of single persons in 1971, while in the survey only 29 percent of the families were so designated. In addition, 21 percent of the families in Saskatchewan consisted of two persons; in the north the figure was 15 percent. Surprisingly perhaps, 57 percent of the families in the communities sampled consisted of three or more people, while the comparative figure for the province was only 43 percent.

3. In terms of educational achievement, the residents of the northern communities surpassed the province of Saskatchewan by a considerable margin, a reflection, at least in part, of the younger population. In Saskatchewan, 22.3 percent of the population not attending school in 1971 had completed grade 12 or better. In the north, the corresponding figure was 28.3 percent. Furthermore, only 27.9 percent of the northern residents not attending school had achieved less than grade nine, while the comparable figure for the province was 47.4 percent.

4. In 1971, income in the northern communities were also considerably higher than in Saskatchewan. The average income of the head of a family was $9,285 compared with $5,761 in the province, while average total family income was $10,673 as contrasted with $7,311 in the province. Even accounting for higher prices, these figures suggest that real incomes in northern communities were substantially above those in Saskatchewan at the time of comparison.

5. In the sample communities, the labour force was divided about equally between the basic and the supporting industries. The statistics indicate clearly that most of the communities have not broadened their basic base.

6. Less than five percent of the employment in the basic industries was accounted for by females. However, in the supporting industries, females comprised 51 percent of the labour force, a considerably larger proportion than the 43 percent that females comprised in the same industries in Saskatchewan.

7. Labour turnover is cited as a perpetual problem faced by employers in remote communities. The highest turnover rate observed was in the unskilled labour category. The turnover rate decreased as the level of skill increased. An intermediate turnover rate was registered by skilled miners and office workers, while the rates for technical, managerial, and supervisory staff were relatively low and similar. Turnover rates were also influenced by age. Unskilled workers under 30 and skilled workers under 40 were much more mobile than older workers in each category.

8. The cost of the turnover to the mineral mining industry alone was estimated to be as much as $48 million in 1974 for recruitment and training. Revenue loss of up to $320 million was estimated due to operation at less than full capacity.

9. Housing may be evaluated in terms of size, quality, and appearance. In terms of number of rooms, dwellings in the communities surveyed were generally larger than those in Saskatchewan. In terms of quality, reports varied even within individual communities. With respect to appearance,the design and arrangement of single family housing in particular was unimaginative and monotonous.

10. Home ownership patterns vary a great deal from one community to the next, a likely reflection of the extent to which the company has encouraged ownership and made mortgage funds available. The census statistics indicate that 70.4 percent of the dwellings in Grande Cache, Alberta, are privately owned, while 68.5 percent of the dwellings in Schefferville, Quebec, are rented. The other communities surveyed fall between these rather wide extremes.

11. A comparison with service centres in rural Saskatchewan indicates that these centres had from 50 to 100 percent more unique commercial facilities per 1,000 population than did the northern communities. This is almost certainly explained by the fact that the towns in southern Saskatchewan also serve a rural population about equal to that of the town itself. Thus a mining community of 5,000 people will provide approximately the same number of unique commercial services as a rural service-centre of 2,500 to 3,000 population.

12. All of the communities surveyed provide a relatively full range of conventional social services. All have elementary and secondary schools. All communities have at least one doctor, most have at least three and some have several more. Psychiatric services are generally not available in the communities, but social workers are present in most of the centres surveyed. Radio, television, and telephone services are usually available. All provided a relatively complete range of conventional recreational facilities.

13. In the formative years of the development of a community an authority, such as a Crown Corporation, should be responsible for all decision-making and administration with regard to the development of public utilities, social services, and housing.

14. As soon as social groups solidify and peer groups emerge, an independent, conventional mayor and council should replace the development authority.

15. In order for local government to properly execute its responsibilities, it has to have an adequate and secure tax base. For this reason we believe that mining properties should be included within the local government district boundaries and should be subjected to property taxation at a reasonable rate.

16. Communities that are built to serve industries which extract non-renewable resources are faced with the inevitable question of what to do when the resource is exhausted. Due to the relative durability of houses, buildings, and much of the urban infrastructure, the community may

well have a physical lifespan greater than the economic lifetime of the activity which it was created to serve. The reluctance to abandon a physically useful community has given rise to a variety of suggestions about how to prolong its economic usefulness.

17. Diversification of the economic base is frequently mentioned as a means of introducing permanence and stability in single industry towns. It is also argued that diversification will reduce the real or imagined dominance of "the company" and will bring in people with different skills and interests. A more heterogeneous population, it is argued, will also enhance the social attractiveness of the community. While this suggestion could be appropriate under highly favorable circumstances, it is not one which has general applicability.

18. In recognition of the limited life span of extractive activities and the difficulty of attracting other basic employment to isolated locations, it has been suggested that non-permanent, as opposed to conventional or permanent communities, be built to serve mining operations. Then, if a mining operation terminates, all or part of its community would be transported to a new location. This option may be attractive when the expected lifetime of the mine is less than fifteen years, but as with diversification, is not of general applicability. A more attractive option may be to establish dormitory facilities at the minesite and fly the labour force in from closest existing cities.

19. The "permanent" community clearly becomes an attractive option within the context of conventional tax and financial practices only as the anticipated life of the mine exceeds 20 years.

20. As the size of community increases, there are rather sharply declining costs of development per capita up to perhaps 2,000 inhabitants and further important reductions to between 5,000 and 10,000 persons.

21. From our discussions with workers, families, managers, and administrators, and in our review of previous studies, the impression was gained that residents of isolated communities hold certain basic expectations about both their jobs and the communities in which they live. These expectations include a complex mixture of economic and social factors and are reflected specifically in attitudes about what constitutes adequate or appropriate community characteristics including both physical facilities and opportunities for social and political interaction. Definite expectations are held not only about working conditions, rates of pay, and opportunities for advancement but also about recognition of the individual worker's importance in the total scheme of things.

22. In view of these expectations, it does not seen likely that the building of model communities would reduce labour turnover if at the same time working conditions are unsatisfactory. Nor is it likely that an improvement in working conditions alone would alleviate the problem if there is dissatisfaction with the community as a place to live.

23. There is evidence that job expectations include definite, and important, notions about what the job should provide in terms of

recognition, self respect, and respect from others, in addition to traditional concerns about income and safe working conditions. Younger workers in particular also expect their jobs to be challenging and to provide opportunity for self-improvement. We are of the opinion that the expectations of people employed in the mining industry as skilled and unskilled labourers are generally not being satisfied in these respects. Also, we are of the opinion that mining companies generally need to devote considerably more attention to the psychological needs of skilled and unskilled workers employed in isolated settings.

24. For economic and social reasons, it is considered necessary to establish the community at a distance of not more than twenty-five road miles from the basic economic activity. In operations involving a mill, this distance should be reduced to less than ten miles; otherwise it is necessary to provide emergency maintenance staff quarters at the mill.

25. Two basic design objectives are to locate the townsite near to a prime amenity such as a lake or river, and to orientate the design of the town as much as possible towards that amenity.

26. The extensive length and harshness of northern winters may dictate the need for other special considerations in design. Commercial, recreational, and institutional facilities should be incorporated in a multi-purpose core, which should be climate-controlled.

27. To enhance the attractiveness of residential areas, variety should be provided in house designs, exterior finishes, and integrated colour schemes. An attractive extension of this idea is to design the housing and commerical core in a style and colour which suits the natural environment.

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APPENDICES

APPENDIX I - 1

Community: Wabush, Newfoundland

Table 1. Age - Sex Distribution, 1971

Age Group	Males		Females		Total	
Years	No.	%	No.	%	No.	%
0 - 4	320	18.2	325	20.1	645	19.1
5 - 9	240	13.6	245	15.2	485	14.4
10 - 14	120	6.8	100	6.2	220	6.5
15 - 19	90	5.1	125	7.7	215	6.4
20 - 24	235	13.4	285	17.6	520	15.4
25 - 29	365	20.7	260	16.1	625	18.5
30 - 34	145	8.2	80	5.0	225	6.7
35 - 39	65	3.7	50	3.1	115	3.4
40 - 44	105	6.0	35	2.2	140	4.1
45 - 49	55	3.1	45	2.8	100	3.0
50 - 54	15	0.9	35	2.2	50	1.5
55 - 59	--	--	20	1.2	20	0.6
60 - 64	5	0.3	5	0.3	10	0.3
65 - 69	--	--	--	--	--	--
70 - 74	--	--	--	--	--	--
75 - 79	--	--	--	--	--	--
80+	--	--	5	0.3	5	0.1
Column Totals	1760	100.0	1615	100.0	3375	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: Wabush, Newfoundland

Table 2. Families[1] by Age of Family Head, 1971

Age of Family Head	Families	
Years	No.	%
less than 25	85	11.0
25 - 34	450	58.1
35 - 44	140	18.1
45 - 54	70	9.0
55 - 64	20	2.6
65+	10	1.3
Column Totals	775	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] A census family consists of a husband and wife (with unmarried children or no children) or a parent with one or more unmarried children, living in the same dwelling.

Community: Wabush, Newfoundland

Table 3. Families[1] by Number of Persons, 1971

Number of Persons	Families	
	No.	%
Single persons[2]	345	30.8
2	115	10.3
3	195	17.4
4	235	21.0
5	115	10.3
6	65	5.8
7	30	2.7
8	10	0.9
9+	10	0.9
Column Total	1,120	100.1

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] A census family consists of a husband and wife (with unmarried children or no children) or a parent with one or more unmarried children, living in the same dwelling.

[2] Single persons were calculated as a residual.

Community: Wabush, Newfoundland

Table 4. Marital Status by Sex of Family Head,[1] 1971

Marital Status	Males		Females		Total	
Married:	No.	%	No.	%	No.	%
Both Spouses present	745	98.0	--	--	745	95
One Spouse only	10	1.3	10	50	20	2
Widowed	--	--	10	50	10	1
Divorced	--	--	--	--	--	
Never married	5	0.7	--	--	5	0
Column Totals	760	100.0	20	100.0	780	100

Source: Statistics Canada, 1971 Census, Enumeration Area Series

[1] A census family consists of a husband and wife (with unmarried children or no children) or a parent with one or more unmarried children, living in the same dwelling.

Community: Wabush, Newfoundland

Table 5. Birthplace by Sex, 1971

Birthplace	Males		Females		Total	
	No.	%	No.	%	No.	%
Canada:						
Same province	1,375	73.5	1,300	77.2	2,675	75.2
Other provinces	280	15.0	250	14.8	530	14.9
United States	20	1.1	5	0.3	25	0.7
United Kingdom	75	4.0	50	3.0	125	3.5
Northern Europe	5	0.3	10	0.6	15	0.4
Western Europe	20	1.1	15	0.9	35	1.0
Southern Europe	50	2.7	15	0.9	65	1.8
Eastern Europe	10	0.5	10	0.6	20	0.6
Asia	20	1.1	15	0.9	35	1.0
All other	15	0.8	15	0.9	30	0.8
Column Totals	1,870	100.1	1,685	100.1	3,555	99.9

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: Wabush, Newfoundland

Table 6. Persons Aged 5+ Attending School by Level of Schooling by Sex, 1971.

Level of Schooling	Males		Females		Total	
	No.	%	No.	%	No.	%
Kindergarten	65	11.1	60	10.8	125	11.0
Grade 1	65	11.1	60	10.8	125	11.0
Grade 2	60	10.3	50	9.0	110	9.6
Grade 3	45	7.7	55	9.9	100	8.8
Grade 4	40	6.8	40	7.2	80	7.0
Grade 5	45	7.7	35	6.3	80	7.0
Grade 6	30	5.1	30	5.4	60	5.3
Grade 7	35	6.0	30	5.4	65	5.7
Grade 8	30	5.1	35	6.3	65	5.7
Grade 9	30	5.1	30	5.4	60	5.3
Grade 10	30	5.1	50	9.0	80	7.0
Grade 11	45	7.7	40	7.2	85	7.5
Grade 12	--	---	5	0.9	5	0.4
Grade 13	--	---	--	---	--	---
Some University	45	7.7	30	5.4	75	6.6
University degree	20	3.4	5	0.9	25	2.2
Column Totals	585	99.9	555	99.9	1,140	100.1

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: Wabush, Newfoundland

Table 7. Persons Aged 5+ Not Attending School by Level of Schooling by Sex, 1971

Level of Schooling	Males		Females		Total	
	No.	%	No.	%	No.	%
No schooling (5-14)	20	1.6	25	2.3	45	1.9
No schooling (15+)	--	--	5	0.5	5	0.2
Grades 1-4	15	1.2	25	2.3	40	1.7
Grades 5-6	35	2.8	30	2.8	65	2.8
Grade 7	35	2.8	30	2.8	65	2.8
Grade 8	85	6.9	80	7.4	165	7.1
Grade 9	150	12.2	180	16.6	330	14.3
Grade 10	245	19.9	160	14.7	405	17.5
Grade 11	390	31.7	340	31.3	730	31.5
Grade 12	65	5.3	60	5.5	125	5.4
Grade 13	45	3.7	25	2.3	70	3.0
Some University	95	7.7	95	8.8	190	8.2
University degree	50	4.1	30	2.8	80	3.5
Column Totals	1,230	99.9	1,085	100.1	2,315	99.9

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: Wabush, Newfoundland

Table 8. Males Aged 15+ with Income by Type of Income, 1971

	Number of Males
Total males 15+	1,120
Males with any income	1,065
Males with employment income	1,060
Males with wage or salary income	1,025
Not available	---

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: Wabush, Newfoundland

Table 9. Active Labour Force[1] by Age by Sex, 1971.

Age Group	Males		Females		Total	
Years	No.	%	No.	%	No.	%
15 - 19	65	5.9	45	15.5	110	7.9
20 - 24	170	15.3	105	36.2	275	19.6
25 - 34	500	45.0	90	31.0	590	42.1
35 - 44	170	15.3	30	10.3	200	14.3
45 - 54	160	14.4	15	5.2	175	12.5
55 - 59	30	2.7	--	--	30	2.1
60 - 64	10	0.9	5	1.7	15	1.1
65+	5	0.5	--	--	5	0.4
Column Totals	1,110	100.0	290	99.9	1,400	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] Active labour force includes those persons who are employed and those unemployed but actively seeking employment

Community: Wabush, Newfoundland

Table 10. Active Labour Force[1] by Level of Schooling by Sex, 1971

Level of Schooling	Males		Females		Total	
	No.	%	No.	%	No.	%
Less than grade 5	15	1.4	5	1.6	20	1.4
Grades 5-8	135	12.3	25	7.9	160	11.3
Grades 9-10	375	34.1	80	25.4	455	32.2
Grades 11-13	315	28.6	85	27.0	400	28.3
Some University	80	7.3	40	12.7	120	8.5
University degree	50	4.5	25	7.9	75	5.3
Other post-secondary	130	11.8	55	17.5	185	13.1
Column Totals	1,100	100.0	315	100.0	1,415	100.1

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] Active labour force includes those persons who are employed and those unemployed but actively seeking employment.

Community: Wabush, Newfoundland

Table 11. Population Aged 15+ by Employment Status and Labour Experience, 1971

	Males	Females	Total
	No.	No.	No.
In Labour Force	1,060	270	1,330
Employed	1,035	225	1,260
Unemployed	30	45	75
In Experienced L.F.	1,050	250	1,300
Worked in 1970	1,035	235	1,270
Not in Labour Force	70	710	780

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Males: Unemployment rate: 2.8%

Participation rate: 93.8%

Females: Unemployment rate: 16.7%

Participation rate: 27.6%

Total: Unemployment rate: 5.6%

Participation rate: 63.0%

Community: Wabush, Newfoundland

Table 12. Experienced Labour Force[1] by Occupation by Sex, 1971

Occupation	Males		Females		Total	
	No.	%	No.	%	No.	%
Managerial, Admin.	20	1.8	5	1.8	25	1.8
Teaching	25	2.2	45	15.8	70	4.9
Medicine & Health	10	0.9	30	10.5	40	2.8
Technological, Social Religous, Artistic	65	5.8	--	--	65	4.6
Clerical	50	4.4	90	31.6	140	9.9
Sales	20	1.8	25	8.8	45	3.2
Service	50	4.4	45	15.8	95	6.7
Farming	5	0.4	--	--	5	0.4
Other Primary	165	14.6	--	--	165	11.7
Processing	60	5.3	--	--	60	4.2
Machining, etc.	245	21.7	--	--	245	17.3
Construction	130	11.5	--	--	130	9.2
Transport Equipment Operators	75	6.6	--	--	75	5.3
Materials Handling	80	7.1	5	1.8	85	6.0
Occupation not Stated	130	11.5	40	14.0	170	12.0
Column Totals	1,130	100.0	285	100.1	1,415	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] Experienced labour force includes those who have worked at some time in the past and are presently either employed or unemployed and actively seeking employment.

Community: Wabush, Newfoundland

Table 13. Experienced Labour Force[1] by Industry by Sex, 1971

Industry	Males		Females		Total	
	No.	%	No.	%	No.	%
Agriculture	--	--	--	--	--	---
Forestry	--	--	--	--	--	---
Fishing, Trapping	--	--	--	--	--	---
Mines, Quarries	790	72.5	25	8.5	815	58.8
Manufacturing	5	0.5	5	1.7	10	0.7
Construction	20	1.8	5	1.7	25	1.8
Transportation, Communication	25	2.3	15	5.1	40	2.9
Trade	40	3.7	45	15.3	85	6.1
Finance, Insurance, Real Estate	5	0.5	30	10.2	35	2.5
Service Industries	65	6.0	125	42.4	190	13.7
Public Admin. & Defense	25	2.3	5	1.7	30	2.2
Unknown	115	10.6	40	13.6	155	11.2
Column Totals	1,090	100.2	295	100.2	1,385	99.9

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] Experienced labour force includes those who have worked at some time in the past and are presently either employed or unemployed and actively seeking employment.

Community: Wabush, Newfoundland

Table 14. Income of Families[1] and Family Heads, 1971

Total Income of families	$9,001,000
Average Income of families	$ 11,000
Total Income of family heads	$8,100,000
Average Income of family heads	$ 10,000

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] A census family consists of a husband and wife (with unmarried children or no children) or a parent with one or more children, living in the same dwelling.

Community: Wabush, Newfoundland

Table 15. Families[1] by Number of Income Recipients, 1971

Number of Income Recipients	Families	
	No.	%
None	5	0.6
One	485	61.8
Two	265	33.8
Three or More	30	3.8
Column Totals	785	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] A census family consists of a husband and wife (with unmarried children or no children) or a parent with one or more children, living in the same dwelling.

Community: Wabush, Newfoundland

Table 16. Dwellings by Tenure, 1971

Tenure	Dwellings	
	No.	%
Owned	250	34.2
Rented	480	65.8
Column Totals	730	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: Wabush, Newfoundland

Table 17. Dwellings by Number of Rooms, 1971

Number of Rooms	Dwellings	
	No.	%
1	20	2.8
2	--	---
3	25	3.5
4	120	16.7
5	155	21.5
6-7	390	54.2
8-9	10	1.4
10+	--	---
Column Totals	720	100.1
Average Rooms/dwelling	5.5	

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

APPENDIX I - 2

Community: Labrador City, Newfoundland

Table 1. Age-Sex Distribution, 1971

Age Group	Males		Females		Total	
Years	No.	%	No.	%	No.	%
0 - 4	700	17.7	705	19.3	1,405	18.5
5 - 9	535	13.5	525	14.4	1,060	13.9
10 - 14	325	8.2	285	7.8	610	8.0
15 - 19	290	7.3	275	7.5	565	7.4
20 - 24	485	12.3	635	17.4	1,120	14.7
25 - 29	580	14.7	485	13.3	1,065	14.0
30 - 34	350	8.8	240	6.6	590	7.8
35 - 39	270	6.8	195	5.3	465	6.1
40 - 44	170	4.3	170	4.7	340	4.5
45 - 49	115	2.9	95	2.6	210	2.8
50 - 54	95	2.4	30	0.8	125	1.6
55 - 59	30	0.7	10	0.3	40	0.5
60 - 64	5	0.1	--	--	5	0.1
65 - 69	--	--	5	0.1	5	0.1
70 - 74	5	0.1	--	--	5	0.1
75 - 79	--	--	--	--	--	--
80+	--	--	--	--	--	--
Column Totals	3,955	99.8	3,655	100.1	7,610	100.1

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: Labrador City, Newfoundland

Table 2. Families[1] by Age of Family Head, 1971

Age of Family Head	Families	
Years	No.	%
Less than 25	275	16.0
25 - 34	835	48.7
35 - 44	385	22.4
45 - 54	180	10.5
55 - 64	35	2.0
65+	5	0.3
Column Totals	1,715	19.9

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] A census family consists of a husband and wife (with unmarried children or no children) or a parent with one or more unmarried children, living in the same dwelling.

Community: Labrador City, Newfoundland

Table 3. Families[1] by Number of Persons, 1971

Number of Persons	Families	
	No.	%
Single persons[2]	905	34.7
2	300	11.5
3	450	17.3
4	445	17.1
5	260	10.0
6	125	4.8
7	60	2.3
8	35	1.3
9+	25	1.0
Column Totals	2,605	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

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[1] A census family consists of a husband and wife (with unmarried children or no children) or a parent with one or more unmarried children, living in the same dwelling.

[2] Single persons were calculated as a residual.

Community: Labrador City, Newfoundland

Table 4. Marital Status by Sex of Family Head,[2] 1971

Marital Status	Males		Females		Total	
	No.	%	No.	%	No.	%
Married:						
Both Spouses present	1,695	99.7	---	---	1,695	99.4
One Spouse only	5	0.3	---	---	5	0.3
Widowed	---	---	5	100.0	5	0.3
Divorced	---	---	---	---	---	---
Never married	---	---	---	---	---	---
Column Totals	1,700	100.0	5	100.0	1,705	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] A census family consists of a husband and wife (with unmarried children or no children) or a parent with one or more unmarried children, living in the same dwelling.

Community: Labrador City, Newfoundland

Table 5. Birthplace by Sex, 1971

Birthplace	Males		Females		Total	
	No.	%	No.	%	No.	%
Canada:						
Same Province	2,740	70.1	2,600	71.8	5,340	70.9
Other Provinces	835	21.4	750	20.7	1,585	21.0
United States	20	0.5	20	0.6	40	0.5
United Kingdom	115	2.9	115	3.2	230	3.1
Northern Europe	10	0.3	5	0.1	15	0.2
Western Europe	70	1.8	50	1.4	120	1.6
Southern Europe	55	1.4	30	0.8	85	1.1
Eastern Europe	10	0.3	5	0.1	15	0.2
Asia	20	0.5	15	0.4	35	0.5
All Other	35	0.9	30	0.8	65	0.9
Column Totals	3,910	100.1	3,620	99.9	7,530	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: Labrador City, Newfoundland

Table 6. Persons Aged 5+ Attending School by Level of Schooling by Sex, 1971

Level of Schooling	Males		Females		Total	
	No.	%	No.	%	No.	%
Kindergarten	90	9.5	115	13.2	205	11.3
Grade 1	155	16.3	110	12.6	265	14.6
Grade 2	85	8.9	90	10.3	175	9.6
Grade 3	90	9.5	90	10.3	180	9.9
Grade 4	90	9.5	65	7.5	155	8.5
Grade 5	70	7.4	65	7.5	135	7.4
Grade 6	50	5.3	75	8.6	125	6.9
Grade 7	65	6.8	70	8.0	135	7.4
Grade 8	65	6.8	50	5.7	115	6.3
Grade 9	60	6.3	50	5.7	110	6.0
Grade 10	50	5.3	35	4.0	85	4.7
Grade 11	40	4.2	30	3.4	70	3.8
Grade 12	--	--	--	--	--	--
Grade 13	--	--	--	--	--	--
Some University	40	4.2	15	1.7	55	3.0
University Degree	--	--	10	1.1	10	0.5
Column Totals	950	100.0	870	99.6	1,820	99.9

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: Labrador City, Newfoundland

Table 7. Persons Aged 5+ not Attending School by Level of Schooling by Sex, 1971

Level of Schooling	Males		Females		Total	
	No.	%	No.	%	No.	%
No Schooling (5-14)	25	1.2	50	2.7	75	1.9
No Schooling (15+)	5	0.2	10	0.5	15	0.4
Grades 1-4	30	1.5	15	0.8	45	1.1
Grades 5-6	35	1.7	50	2.7	85	2.2
Grade 7	40	1.9	80	4.3	120	3.1
Grade 8	135	6.6	185	9.9	320	8.2
Grade 9	270	13.1	345	18.4	615	15.7
Grade 10	325	15.8	330	17.6	655	16.7
Grade 11	795	38.7	555	29.7	1,350	34.4
Grade 12	105	5.1	100	5.3	205	5.2
Grade 13	35	1.7	20	1.1	55	1.4
Some University	150	7.3	85	4.5	235	6.0
University Degree	105	5.1	45	2.4	150	3.8
Column Totals	2,055	99.9	1,870	99.9	3,925	100.1

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: Labrador City, Newfoundland

Table 8. Males Aged 15+ with Income by Type of Income, 1971

	Number of Males
Total males 15+	2,405
Males with any income	2,255
Males with employment income	2,235
Males with wage or salary income	2,155
Not available	---

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: Labrador City, Newfoundland

Table 9. Active Labour Force[1] by Age by Sex, 1971

Age Group	Males		Females		Total	
Years	No.	%	No.	%	No.	%
15 - 19	140	6.2	90	16.5	230	8.2
20 - 24	455	20.2	190	34.9	645	23.1
25 - 34	915	40.7	155	28.4	1,070	38.3
35 - 44	450	20.0	75	13.8	525	18.8
45 - 54	235	10.4	20	3.7	255	9.1
55 - 59	45	2.0	10	1.8	55	2.0
60 - 64	10	0.4	5	0.9	15	0.5
65+	--	--	--	--	--	--
Column Totals	2,250	99.9	545	100.0	2,795	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] Active labour force includes those persons who are employed and those unemployed but actively seeking employment.

Community: Labrador City, Newfoundland

Table 10. Active Labour Force[1] by Level of Schooling by Sex, 1971.

Level of Schooling	Males		Females		Total	
	No.	%	No.	%	No.	%
Less than grade 5	25	1.1	10	1.7	35	1.2
Grades 5 - 8	245	10.8	55	9.2	300	10.5
Grades 9 - 10	660	29.2	150	25.2	810	28.4
Grades 11 - 13	800	35.4	165	27.7	965	33.8
Some University	220	9.7	75	12.6	295	10.3
University Degree	125	5.5	55	9.2	180	6.3
Other post-secondary	185	8.2	85	14.3	270	9.5
Column Totals	2,260	99.9	595	99.9	2,855	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] Active labour force includes those persons who are employed and those unemployed but actively seeking employment.

Community: Labrador City, Newfoundland

Table 11. Population Aged 15+ by Employment and Labour Experience, 1971

	Males	Females	Total
	No.	No.	No.
In Labour Force	2,250	560	2,810
Employed	2,185	505	2,690
Unemployed	60	60	120
In Expereinced L.F.	2,230	535	2,765
Worked in 1970	2,195	495	2,690
Not in Labour Force	175	1,560	1,735

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Males: Unemployment Rate = 2.67%
Participation Rate = 92.78%

Females : Unemployment Rate = 10.7%
Participation Rate = 26.4%

Total : Unemployment Rate = 4.3%
Participation Rate = 61.8%

Community: Labrador City, Newfoundland

Table 12. Experienced Labour Force[1] by Occupation by Sex, 1971

Occupation	Males		Females		Total	
	No.	%	No.	%	No.	%
Managerial, Admin.	50	2.2	5	0.9	55	2.0
Teaching	45	2.0	80	14.3	125	4.5
Medicine & Health	20	0.9	50	8.9	70	2.5
Technological, Social Religous, Artistic	120	5.3	10	1.8	130	4.6
Clerical	100	4.5	185	33.0	285	10.2
Sales	80	3.6	40	7.1	120	4.3
Service	130	5.8	105	18.8	235	8.4
Farming	---	---	---	---	---	---
Other Primary	365	16.3	5	0.9	370	13.2
Processing	150	6.7	---	---	150	5.3
Machining, etc.	380	16.9	10	1.8	390	13.9
Construction	255	11.4	---	---	255	9.1
Transport Equipment Operators	190	8.5	---	---	190	6.8
Materials Handling	170	7.6	---	---	170	6.1
Occupation not stated	190	8.5	70	12.5	260	9.3
Column Totals	2,245	100.2	560	100.0	2,805	100.2

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] Experienced labour force includes those who have worked at some time in the past and are presently either employed or unemployed and actively seeking employment.

Community: Labrador City, Newfoundland

Table 13. Experienced Labour Force[1] by Industry by Sex, 1971

Industry	Males		Females		Total	
	No.	%	No.	%	No.	%
Agriculture	--	--	--	--	--	--
Forestry	--	--	--	--	--	--
Fishing, Trapping	--	--	--	--	--	--
Mines, Quarries	1,410	63.1	60	11.0	1,470	52.9
Manufacturing	55	2.5	5	0.9	60	2.2
Construction	160	7.2	15	2.8	175	6.3
Transportation, Communication	40	1.8	15	2.8	55	2.0
Trade	145	6.5	85	15.6	230	8.3
Finance, Insurance, Real Estate	20	0.9	30	5.5	50	1.8
Service Industries	190	8.5	255	46.8	455	16.0
Public Admin. & Defense	30	1.3	10	1.8	40	1.4
Unknown	185	8.3	70	12.8	255	9.2
Column Totals	2,235	100.1	545	100.0	2,780	100.1

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] Experienced labour force includes those who have worked at some time in the past and are presently either employed or unemployed and actively seeking employment.

Community: Labrador City, Newfoundland

Table 14. Income of Families[1] and Family Heads, 1971

Total Income of Families	$ 22,180,000
Average Income of Families	$ 13,500
Total Income of Family Heads	$ 19,882,000
Average Income of Family Heads	$ 12,200

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] A census family consists of a husband and wife (with unmarried children or no children) or a parent with one or more children, living in the same dwelling.

Community: Labrador City, Newfoundland

Table 15. Families[1] by Number of Income Recipients, 1971

Number of Income Recipients	Families	
	No.	%
None	--	--
One	1,050	62.1
Two	595	35.2
Three or more	45	2.7
Column Totals	1,690	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] A census family consists of a husband and wife (with unmarried children or no children) or a parent with one or more children, living in the same dwelling.

Community: Labrador City, Newfoundland

Table 16. Dwellings by Tenure, 1971

Tenure	Dwellings	
	No.	%
Owned	1,030	59.7
Rented	695	40.3
Column Totals	1,725	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: Labrador City, Newfoundland

Table 17. Dwellings by Number of Rooms, 1971

Number of Rooms	Dwellings	
	No.	%
1	15	0.9
2	30	1.8
3	70	4.1
4	175	10.3
5	455	26.8
6 - 7	915	53.8
8 - 9	35	2.1
10+	5	0.3
Column Totals	1,700	100.1
Average Rooms/dweeling	5.6	

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

APPENDIX I - 3

Community: Schefferville, Quebec

Table 1. Age - Sex Distribution, 1971

Age Group	Males		Females		Total	
Years	No.	%	No.	%	No.	%
0 - 4	255	14.5	190	12.9	445	13.8
5 - 9	225	12.8	230	15.6	455	14.1
10 - 14	155	8.8	125	8.5	280	8.7
15 - 19	120	6.8	105	7.1	225	7.0
20 -24	175	9.9	245	16.6	420	13.0
25 - 29	225	12.8	190	12.9	415	12.8
30 - 34	180	10.2	150	10.2	330	10.2
35 - 39	165	9.4	100	6.8	265	8.2
40 - 44	75	4.3	70	4.7	145	4.5
45 - 49	55	3.1	25	1.7	80	2.5
50 - 54	60	3.4	25	1.7	85	2.6
55 - 59	45	2.6	5	0.3	50	1.5
60 - 64	25	1.4	15	1.0	40	1.2
65 - 69	--	---	--	---	--	---
70 - 74	--	---	--	---	--	---
75 - 79	--	---	--	---	--	---
80+	--	---	--	---	--	---
Column Totals	1,760	100.0	1,475	100.0	3,235	100.1

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: Schefferville, Quebec

Table 2. Families[1] by Age of Family Head, 1971

Age of Family	Families	
Years	No.	%
Less Than 25	75	10.3
25 - 34	360	49.3
35 - 44	195	26.7
45 - 54	80	11.0
55 - 64	20	2.7
65+	--	---
Column Totals	730	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] A census family consists of a husband and wife (with unmarried children or no children) or a parent with one of more unmarried children, living in the same dwelling.

Community: Schefferville, Quebec

Table 3. Families[1] by Number of Persons, 1971

Number of Persons	Families	
	No.	%
Single Persons[2]	660	48.5
2	165	12.1
3	180	13.2
4	185	13.6
5	90	6.6
6	60	4.4
7	10	0.7
8	5	0.4
9+	5	0.4
Column Totals	1,360	99.9

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] A census family consists of a husband and wife (with unmarried children or no children) or a parent with one or more unmarried children, living in the same dwelling.

[2] Single persons were calculated as a residual.

Community: Schefferville, Quebec

Table 4. Marital Status by Sex of Family Head,[1] 1971

Marital Status	Males		Females		Total	
	No.	%	No.	%	No.	%
Married:						
Both Spouses present	745	98.7	--	---	745	98.0
One Spouse Present	10	1.3	--	---	10	1.3
Widowed	--	---	--	---	--	---
Divorced	--	---	--	---	--	---
Never Married	--	--	5	100.0	5	0.7
Column Totals	755	100.0	5	100.0	760	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] A census family consists of a husband and wife (with unmarried children or no children) or a parent with one or more unmarried children, living in the same dwelling.

Community: Schefferville, Quebec

Table 5. Birthplace by Sex, 1971

Birthplace	Males		Females		Total	
	No.	%	No.	%	No.	%
Canada:						
Same Province	1,260	71.8	1,085	70.9	2,345	71.4
Other Provinces	330	18.8	340	22.2	670	20.4
United States	15	0.9	5	0.3	20	0.6
United Kingdom	25	1.4	10	0.7	35	1.1
Northern Europe	--	---	--	---	--	---
Western Europe	35	2.0	35	2.3	70	2.1
Southern Europe	55	3.1	35	2.3	90	2.7
Eastern Europe	10	0.6	5	0.3	15	0.5
Asia	10	0.6	5	0.3	15	0.5
All other	15	0.9	10	0.7	25	0.8
Column Totals	1,755	100.1	1,530	100.0	3,285	100.1

Source: Statistics Canada, 1971 Census, Enumeration Area Sereis.

Community: Schefferville, Quebec

Table 6. Persons Aged 5+ Attending School by Level of Schooling by Sex, 1971

Level of Schooling	Males		Females		Total	
	No.	%	No.	%	No.	%
Kindergarten	55	9.2	55	10.7	110	9.9
Grade 1	60	10.0	65	12.6	125	11.2
Grade 2	60	10.0	60	11.7	120	10.8
Grade 3	45	7.5	50	9.7	95	8.5
Grade 4	65	10.8	55	10.7	120	10.8
Grade 5	60	10.0	50	9.7	110	9.9
Grade 6	35	5.8	30	5.8	65	5.8
Grade 7	45	7.5	25	4.9	70	6.3
Grade 8	40	6.7	25	4.9	65	5.8
Grade 9	30	5.0	35	6.8	65	5.8
Grade 10	20	3.3	15	2.9	35	3.1
Grade 11	30	5.0	15	2.9	45	4.0
Grade 12	15	2.5	20	3.9	35	3.1
Grade 13	--	---	--	---	--	---
Some University	15	2.5	5	1.0	20	1.8
University Degree	25	4.2	10	1.9	35	3.1
Column Totals	600	100.0	515	100.1	1,115	99.9

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: Schefferville, Quebec

Table 7. Persons Aged 5+ Not Attending School by Level of Schooling by Sex, 1971

Level of Schooling	Males		Females		Total	
	No.	%	No.	%	No.	%
No Schooling (5-14)	30	2.7	30	3.0	60	2.8
No Schooling (15+)	--	---	10	0.9	10	0.5
Grades 1-4	30	2.7	50	5.0	80	3.7
Grades 5-6	60	5.3	55	5.4	115	5.4
Grade 7	85	7.6	100	9.9	185	8.7
Grade 8	65	5.8	80	7.9	145	6.8
Grade 9	200	17.8	140	13.9	340	15.9
Grade 10	135	12.0	140	13.9	275	12.9
Grade 11	215	19.1	190	18.8	405	19.0
Grade 12	160	14.2	135	13.4	295	13.8
Grade 13	20	1.8	20	2.0	40	1.9
Some University	50	4.4	30	3.0	80	3.7
University Degree	75	6.7	30	3.0	105	4.9
Column Totals	1,125	100.1	1,010	100.1	2,135	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: Schefferville, Quebec

Table 8. Males Aged 15+ with Income by Type of Income, 1971

	Number of Males
Total Males 15+	1,100
Males with any income	1,040
Males with employment income	1,040
Males with wage or salary income	1,005
Not available	---

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: Schefferville, Quebec

Table 9. Active Labour Force[1] by Age by Sex, 1971

Age Group	Males		Females		Total	
Years	No.	%	No.	%	No.	%
15 - 19	75	7.0	55	14.3	130	8.9
20 - 24	150	14.0	105	27.3	255	17.5
25 - 34	405	37.7	130	33.8	535	36.6
35 - 44	260	24.2	55	14.3	315	21.6
45 - 54	115	10.7	30	7.8	145	9.9
55 - 59	40	3.7	5	1.3	45	3.1
60 - 64	15	1.4	5	1.3	20	1.4
65+	15	1.4	--	---	15	1.0
Column Totals	1,075	100.1	385	100.1	1,460	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] Active labour force includes those persons who are employed and those unemployed but actively seeking employment.

Community: Schefferville, Quebec

Table 10. Active Labour Force[1] by Level of Schooling by Sex, 1971

Level of Schooling	Males		Females		Total	
	No.	%	No.	%	No.	%
Less than grade 5	30	2.8	10	2.5	40	2.7
Grades 5-8	200	18.7	45	11.3	245	16.7
Grades 9-10	325	30.4	100	25.0	425	28.9
Grades 11-13	310	29.0	100	25.0	410	27.9
Some University	50	4.7	30	7.5	80	5.4
University Degree	80	7.5	25	6.3	105	7.1
Other post-secondary	75	7.0	90	22.5	165	11.2
Column Totals	1,070	100.1	400	100.1	1,470	99.9

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] Active labour force includes those persons who are employed and those unemployed but actively seeking employment.

Community: Schefferville, Quebec

Table 11. Population Aged 15+ by Employment Status and Labour Experience, 1971

	Males	Females	Total
	No.	No.	No.
In Labour Force	1,025	355	1,380
Employed	1,000	325	1,325
Unemployed	35	35	70
In Experienced L.F.	1,015	345	1,360
Worked in 1970	1,015	335	1,350
Not in Labour Force	75	560	635

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Males:	Unemployment Rate:	3.4%
	Participation Rate:	93.2%
Females:	Unemployment Rate:	9.9%
	Participation Rate:	38.8%
Total:	Unemployment Rate:	5.1%
	Participation Rate:	68.5%

Community: Schefferville, Quebec

Table 12. Experienced Labour Force[1] by Occupation by Sex, 1971

Occupation	Males		Females		Total	
	No.	%	No.	%	No.	%
Managerial, Admin.	50	4.6	5	1.3	55	3.7
Teaching	15	1.4	70	17.9	85	5.7
Medicine & Health	--	---	30	7.7	30	2.0
Technological, Social, Religous, Artistic	100	9.1	15	3.8	115	7.7
Clerical	60	5.5	105	26.9	165	11.1
Sales	30	2.7	15	3.8	45	3.0
Service	50	4.6	60	15.4	110	7.4
Farming	--	---	--	---	---	---
Other Primary	205	18.7	10	2.6	215	14.5
Processing	20	1.8	--	---	20	1.3
Machining, etc.	160	14.6	10	2.6	170	11.4
Construction	110	10.0	--	---	110	7.4
Transport Equipment Operators	110	10.0	--	---	110	7.4
Materials Handling	55	5.0	--	---	55	3.7
Occupation not stated	130	11.9	70	17.9	200	13.5
Column Totals	1,095	99.9	390	99.9	1,485	99.8

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: Schefferville, Quebec

Table 13. Experienced Labour Force[1] by Industry by Sex, 1971

Industry	Males		Females		Total	
	No.	%	No.	%	No.	%
Agriculture	--	---	--	---	--	---
Forestry	--	---	--	---	--	---
Fishing, Trapping	--	---	--	---	--	---
Mines, Quarries	685	65.6	55	14.3	740	51.7
Manufacturing	10	1.0	5	1.3	15	1.0
Construction	25	2.4	5	1.3	30	2.1
Transportation, Communication	45	4.3	5	1.3	50	3.5
Trade	55	5.3	35	9.1	90	6.3
Finance, Insurance, Real Estate	--	---	20	5.2	20	1.4
Service Industries	60	5.7	160	41.6	220	15.4
Public Admin. & Defense	40	3.8	30	7.8	70	4.9
Unknown	125	12.0	70	18.2	195	13.6
Column Totals	1,045	100.1	385	100.1	1,430	99.9

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] Experienced labour force includes those who have worked at some time in the past and are presently either employed or unemployed and actively seeking employment.

Community: Schefferville, Quebec

Table 14. Income of Families[1] and Family Heads, 1971

Total Income of Families	$ 9,743,000
Average Income of Families	$ 13,166
Total Income of Family Heads	$ 8,211,000
Average Income of Family Heads	$ 11,096

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] A census family consists of a husband and wife (with unmarried children or no children) or a parent with one or more children, living in the same dwelling.

Community: Schefferville, Quebec

Table 15. Families[1] by Number of Income Recipients, 1971

Number of Income Recipients	Families	
	No.	%
None	--	---
One	440	55.7
Two	290	36.7
Three or more	60	7.6
Column Totals	790	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] A census family consists of a husband and wife (with unmarried children or no children) or a parent with one or more children, living in the same dwelling.

Community: Schefferville, Quebec

Table 16. Dwellings by Tenure, 1971

Tenure	Dwellings	
	No.	%
Owned	265	31.5
Rented	575	68.5
Column Totals	840	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: Schefferville, Quebec

Table 17. Dwellings by Number of Rooms, 1971

Number of Rooms	Dwellings	
	No.	%
1	60	6.6
2	40	4.4
3	70	7.7
4	180	19.8
5	290	31.9
6-7	225	24.7
8-9	30	3.3
10+	15	1.6
Column Totals	910	100.0
Average Rooms/dwelling	4.8	

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

APPENDIX I - 4

Community: Elliot Lake, Ontario

Table 1. Age - Sex Distribution, 1971

Age Group	Males		Females		Total	
Years	No.	%	No.	%	No.	%
0 - 4	455	11.7	370	10.2	825	11.0
5 - 9	590	15.2	530	14.6	1,120	14.9
10 - 14	460	11.8	545	15.1	1,005	13.4
15 - 19	380	9.8	350	9.7	730	9.7
20 - 24	340	8.7	285	7.9	625	8.3
25 - 29	260	6.7	275	7.6	535	7.1
30 - 34	280	7.2	340	9.4	620	8.3
35 - 39	260	6.7	220	6.1	480	6.4
40 - 44	235	6.0	180	5.0	415	5.5
45 - 49	200	5.1	190	5.2	390	5.2
50 - 54	150	3.9	170	4.7	320	4.3
55 - 59	130	3.3	100	2.8	230	3.1
60 - 64	95	2.4	30	0.8	125	1.7
65 - 69	30	0.8	5	0.1	34	0.5
70 - 74	5	0.1	5	0.1	10	0.1
75 - 79	15	0.4	20	0.6	35	0.5
80+	5	0.1	5	0.1	10	0.1
Column Totals	3,890	99.9	3,620	100.0	7,510	100.1

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: Elliot Lake, Ontario

Table 2. Families[1] by Age of Family Head, 1971

Age of Family Head	Families	
Years	No.	%
Less than 25	135	7.8
25 - 34	495	28.8
35 - 44	505	29.4
45 - 54	355	20.6
44 - 64	185	10.8
65+	45	2.6
Column Totals	1,720	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] A census family consists of a husband and wife (with unmarried children or no children) or a parent with one or more unmarried children, living in the same dwelling.

Community: Elliot Lake, Ontario

Table 3. Families[1] by Number of Persons, 1971

Number of Persons	Families	
	No.	%
Single persons[2]	395	18.7
2	340	16.1
3	340	16.1
4	400	18.9
5	285	13.5
6	190	9.0
7	95	4.5
8	45	2.1
9+	25	1.2
Column Totals	2,115	100.1

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] A census family consists of a husband and wife (with unmarried children or no children) or a parent with one or more unmarried children living in the same dwelling.

[2] Single persons were calculated as a residual.

Community: Elliot Lake, Ontario

Table 4. Marital Status by Sex of Family Head,[1] 1971

Marital Status	Males		Females		Total	
	No.	%	No.	%	No.	%
Married:						
Both Spouses present	1,565	97.2	---	---	1,565	92.3
One Spouse only	20	1.2	40	47.1	60	3.5
Widowed	15	0.9	30	35.3	45	2.7
Divorced	--	---	15	17.6	15	0.9
Never Married	10	0.6	---	----	10	0.6
Column Totals	1,610	99.9	85	100.0	1,695	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] A census family consists of a husband and wife (with unmarried children or no children) or a parent with one or more unmarried children, living in the same dwelling.

Community: Elliot Lake, Ontario

Table 5. Birthplace by Sex, 1971

Birthplace	Males		Females		Total	
	No.	%	No.	%	No.	%
Canada:						
Same Province	2,360	59.9	2,405	64.6	4,765	62.2
Other Provinces	1,090	27.7	990	26.6	2,080	27.1
United States	25	0.6	15	0.4	40	0.5
United Kingdom	115	2.9	95	2.6	210	2.7
Northern Europe	20	0.5	10	0.3	30	0.4
Western Europe	130	3.3	90	2.4	220	2.9
Southern Europe	90	2.3	50	1.3	140	1.8
Eastern Europe	75	1.9	45	1.2	120	1.6
Asia	25	0.6	10	0.3	35	0.5
All other	10	0.3	15	0.4	25	0.3
Column Totals	3,940	100.0	3,725	100.1	7,665	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: Elliot Lake, Ontario

Table 6. Persons Aged 5+ Attending School by Level of Schooling by Sex, 1971

Level of Schooling	Males		Females		Total	
	No.	%	No.	%	No.	%
Kindergarten	110	6.8	105	7.7	215	7.2
Grade 1	110	6.8	105	7.7	215	7.2
Grade 2	160	9.9	105	7.7	265	8.9
Grade 3	145	9.0	130	9.5	275	9.2
Grade 4	170	10.5	95	6.9	265	8.9
Grade 5	115	7.1	110	8.0	225	7.5
Grade 6	95	5.9	120	8.8	215	7.2
Grade 7	115	7.1	130	9.5	245	8.2
Grade 8	100	6.2	60	4.3	160	5.4
Grade 9	100	6.2	120	8.8	220	7.4
Grade 10	80	4.9	105	7.7	185	6.2
Grade 11	85	5.2	70	5.1	155	5.2
Grade 12	100	6.2	60	4.4	160	5.4
Grade 13	50	3.1	25	1.8	75	2.5
Some University	75	4.6	20	1.5	95	3.2
University Degree	10	0.6	10	0.7	20	0.7
Column Totals	1,620	100.1	1,370	100.1	2,990	100.3

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: Elliot Lake, Ontario

Table 7. Persons Aged 5+ Not attending School by Level of of Schooling by Sex, 1971

Level of Schooling	Males		Females		Totals	
	No.	%	No.	%	No.	%
No schooling (5-14)	25	1.1	55	2.5	80	1.8
No schooling(15+)	10	0.5	15	0.7	25	0.6
Grades 1-4	145	6.5	100	4.6	245	5.6
Grades 5-6	190	8.6	165	7.6	355	8.1
Grade 7	140	6.3	95	4.4	235	5.3
Grade 8	350	15.8	310	14.3	660	15.0
Grade 9	210	9.5	210	9.7	420	9.6
Grade 10	365	16.4	315	14.5	680	15.5
Grade 11	195	8.8	265	12.2	460	10.5
Grade 12	235	10.6	370	17.0	605	13.8
Grade 13	130	5.9	110	5.1	240	5.5
Some University	110	5.0	125	5.7	235	5.3
University Degree	115	5.2	40	1.8	155	3.5
Column Totals	2,220	100.2	2,175	100.1	4,395	100.1

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: Elliot Lake, Ontario

Table 8. Males Aged 15+ with Income by Type of Income, 1971

	Number of Males
Total males 15+	2,455
Males with any income	2,225
Males with employment income	2,165
Males with wage or salary income	1,900
Not available	--

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: Elliot Lake, Ontario

Table 9. Active Labour Force[1] by Age by Sex, 1971

Age Group	Males		Females		Total	
Years	No.	%	No.	%	No.	%
15 - 19	145	7.3	110	15.3	255	9.5
20 - 24	250	12.7	95	13.2	345	12.8
25 - 34	515	26.1	180	25.0	695	25.8
35 - 44	510	25.8	180	25.0	690	25.6
45 - 54	370	18.7	125	17.4	495	18.4
55 - 59	105	5.3	20	2.8	125	4.6
60 - 64	65	3.3	10	1.4	75	2.8
65+	15	0.8	--	---	15	0.6
Column Totals	1,975	100.0	720	100.1	2,695	100.1

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] Active labour force includes those persons who are employed and those unemployed but actively seeking employment.

Community: Elliot Lake, Ontario

Table 10. Active Labour Force[1] by Level of Schooling by Sex, 1971

Level of Schooling	Males		Females		Total	
	No.	%	No.	%	No.	%
Less than grade 5	80	4.0	5	0.7	85	3.2
Grades 5 - 8	580	29.3	105	14.8	685	25.5
Grades 9 - 10	570	28.8	165	23.2	735	27.3
Grades 11 - 13	455	23.0	240	33.8	695	25.8
Some University	130	6.6	75	10.6	205	7.6
University degree	75	3.8	15	2.1	90	3.3
Other post-secondary	90	4.5	105	14.8	195	7.2
Column Totals	1,980	100.0	710	100.0	2,690	99.9

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] Active labour force includes those persons who are employed and those unemployed but actively seeking employment.

Community: Elliot Lake, Ontario

Table 11. Population Aged 15+ by Employment Status and Labour Experience, 1971

	Males	Females	Total
In Labour Force	2,080	815	2,895
Employed	1,975	710	2,685
Unemployed	90	85	175
In Experienced L.F.	2,030	755	2,785
Worked in 1970	2,000	715	2,715
Not in Labour Force	365	1,420	1,785

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Males: Unemployment rate - 4.3%

Participation rate - 85.1%

Females: Unemployment rate - 10.4%

Participation rate - 36.5%

Total: Unemployment rate - 6.0%

Participation rate - 62.0%

Community: Elliot Lake, Ontario

Table 12. Experienced Labour Force[1] by Occupation by Sex, 1971

Occupation	Males		Females		Total	
	No.	%	No.	%	No.	%
Managerial, Admin.	55	3.1	25	3.9	80	3.3
Teaching	20	1.1	65	10.1	85	3.5
Medicine & Health	20	1.1	70	10.9	90	3.7
Technological, Social, Religous, Artistic	110	6.1	10	1.6	120	4.9
Clerical	65	3.5	215	33.3	280	11.5
Sales	80	4.5	50	7.8	130	5.3
Service	170	9.5	135	20.9	305	12.5
Farming	---	---	---	---	---	---
Other Primary	530	29.5	5	0.8	535	21.9
Processing	50	2.8	---	---	50	2.0
Machining, etc.	205	11.4	---	---	205	8.4
Construction	165	9.2	---	---	165	6.8
Transport Equipment Operators	65	3.6	---	---	65	2.7
Materials Handling	170	9.5	---	---	170	7.0
Occupation not stated	90	5.0	70	10.9	160	6.6
Column Totals	1,795	99.9	645	100.2	2,440	100.1

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] Experienced labour force includes those who have worked at some time in the past and are presently either employed or unemployed and actively seeking employment.

Community: Elliot Lake, Ontario

Table 13. Experienced Labour Force[1] by Industry by Sex, 1971

Industry	Males		Females		Total	
	No.	%	No.	%	No.	%
Agriculture	--	--	--	--	--	--
Forestry	5	0.3	--	--	5	0.2
Fishing, Trapping	--	--	--	--	--	--
Mines, Quarries	1,205	64.4	25	3.7	1,230	48.3
Manufacturing	30	1.6	--	--	30	1.2
Construction	45	2.4	--	--	45	1.8
Transportation, Communication	30	1.6	10	1.5	40	1.6
Trade	150	8.0	105	15.6	255	10.0
Finance, Insurance Real Estate	15	0.8	25	3.7	40	1.6
Service Industries	170	9.1	385	57.0	555	21.8
Public Admin. & Defense	135	7.2	45	6.7	180	7.1
Unknown	85	4.5	80	11.9	165	6.5
Column Totals	1,870	99.9	675	100.1	2,545	100.1

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] Experienced labour force includes those who have worked at some time in the past and are presently either employed or unemployed and actively seeking employment.

Community: Elliot Lake, Ontario

Table 14. Income of Families[1] and Family Heads, 1971

Total Income of Families	$17,416,000
Average Income of Families	$ 9,640
Total Income of Family Heads	$14,498,000
Average Income of Family Heads	$ 7,820

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] A census family consists of a husband and wife (with unmarried children or no children) or a parent with one or more children, living in the same dwelling

Community: Elliot Lake, Ontario

Table 15. Families[1] by Number of Income Recipients, 1971

Number of Income Recipients	Families	
	No.	%
None	5	0.3
One	825	48.4
Two	690	40.5
Three or more	185	10.9
Column Totals	1,705	100.1

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] A census family consists of a husband and wife (with unmarried children or no children) or a parent with one or more children, living in the same dwelling.

Community: Elliot Lake, Ontario

Table 16. Dwellings by Tenure, 1971

Tenure	Dwellings	
	No.	%
Owned	1,170	66.1
Rented	600	33.9
Column Totals	1,770	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: Elliot Lake, Ontario

Table 17. Dwellings by Number of Rooms, 1971

Number of Rooms	Dwellings	
	No.	%
1	20	1.2
2	30	1.8
3	90	5.4
4	200	12.0
5	590	35.5
6-7	640	38.6
8-9	80	4.8
10+	10	0.6
Column Totals	1,660	99.0
Average Rooms/dwelling	5.4	

Source: Statistics Canada, 1971 Census, Enumeration Area Service.

APPENDIX I - 5

Community: Uranium City, Saskatchewan

Table 1. Age - Sex Distribution, 1971

Age Group	Males		Females		Total	
Years	No.	%	No.	%	No.	%
0 - 4	130	13.7	170	18.6	300	16.1
5 - 9	140	14.7	125	13.7	265	14.2
10 - 14	115	12.1	105	11.5	220	11.8
15 - 19	75	7.9	50	5.5	125	6.7
20 - 24	70	7.4	105	11.5	175	9.4
25 - 29	90	9.5	100	10.9	190	10.2
30 - 34	90	9.5	65	7.1	155	8.3
35 - 39	60	6.3	60	6.6	120	6.4
40 - 44	60	6.3	35	3.8	95	5.1
45 - 49	30	3.2	35	3.8	65	3.5
50 - 54	35	3.7	20	2.2	55	2.9
55 - 59 60 - 64	40	4.2	30	3.3	70	3.8
65 - 74 75 - 79 80+	15	1.6	15	1.6	30	1.6
Column Totals	950	100.1	915	100.1	1,865	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: Uranium City, Saskatchewan

Table 2. Families[1] by Age of Family Head, 1971

Age of Family Head	Families	
Years	No.	%
Less than 25	45	10.1
25 - 34	170	38.2
35 - 44	110	24.7
45 - 54	65	14.6
55 - 64	35	7.9
65 +	20	4.5
Column Totals	445	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

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[1] A census family consists of a husband and wife (with unmarried children or no children) or a parent with one or more unmarried children, living in the same dwelling.

Community: Uranium City, Saskatchewan

Table 3. Families[1] by Number of Persons, 1971

Number of Persons	Families	
	No.	%
Single persons[2]	45	9.2
2	100	20.4
3	90	18.4
4	105	21.4
5	60	12.2
6	40	8.2
7	25	5.1
8	10	2.0
9+	15	3.1
Column Totals	490	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] A census family consists of a husband and wife (with unmarried children or no children) or a parent with one or more unmarried children, living in the same dwelling.

[2] Single persons were calculated as a residual.

Community: Uranium City, Saskatchewan

Table 4. Marital Status by Sex of Family Head[1], 1971

Marital Status	Males		Females		Total	
	No.	%	No.	%	No.	%
Married:						
Both Spouses present	385	96.3	--	--	385	91.7
One Spouse Only	10	2.5	10	50.0	20	4.8
Widowed	--	---	10	50.0	10	2.4
Divorced	--	---	--	--	--	---
Never married	5	1.3	--	--	5	1.2
Column Totals	400	100.1	20	100.0	420	100.1

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] A census family consists of a husband and wife (with unmarried children or no children) or a parent with one or more unmarried children, living in the same dwelling.

Community: Uranium City, Saskatchewan

Table 5. Birthplace by Sex, 1971

Birthplace	Males		Females		Total	
	No.	%	No.	%	No.	%
Canada:						
Same Province	490	51.0	485	56.7	975	53.7
Other Provinces	340	35.4	270	31.6	610	33.6
United States	---	--	---	--	---	--
United Kingdom	15	1.6	10	1.2	25	1.4
Northern Europe	10	1.0	10	1.2	20	1.1
Western Europe	55	5.7	60	7.0	115	6.3
Southern Europe	5	0.5	---	--	5	0.3
Eastern Europe	45	4.7	15	1.8	60	3.3
Asia	---	--	---	--	---	--
All Other	---	--	5	0.6	5	0.3
Column Totals	960	99.9	855	100.1	1,815	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: Uranium City, Saskatchewan

Table 6. Persons Aged 5+ Attending School by Level of Schooling by Sex, 1971

Level of Schooling	Males		Females		Total	
	No.	%	No.	%	No.	%
Kindergarten	15	5.0	20	2.2	35	6.4
Grade 1	35	11.7	30	12.2	65	11.9
Grade 2	25	8.3	25	10.2	50	9.2
Grade 3	55	18.3	25	10.2	80	14.7
Grade 4	35	11.7	40	16.3	75	13.8
Grade 5	30	10.0	25	10.2	55	10.1
Grade 6	20	6.7	20	8.2	40	7.3
Grade 7	20	6.7	25	10.2	45	8.3
Grade 8	20	6.7	15	6.1	35	6.4
Grade 9	15	5.0	10	4.1	25	4.6
Grade 10	15	5.0	10	4.1	25	4.6
Grade 11	10	3.3	--	---	10	1.8
Grade 12	5	1.7	--	---	5	0.9
Grade 13	--	---	--	---	--	---
Some University	n/a	n/a	n/a	n/a	n/a	n/a
University Degree	n/a	n/a	n/a	n/a	n/a	n/a
Column Totals	300	100.0	245	100.0	545	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: Uranium City, Saskatchewan

Table 7. Persons Aged 5+ Not Attending School by Level of Schooling by Sex, 1971

Level of Schooling	Males		Females		Total	
	No.	%	No.	%	No.	%
No schooling (5-14)	20	3.3	15	2.7	35	3.0
No schooling (15+)	15	2.5	30	5.5	45	3.9
Grades 1-4	35	5.8	30	5.5	65	5.6
Grades 5-6	35	5.8	30	5.5	65	5.6
Grade 7	35	5.8	30	5.5	65	5.6
Grade 8	95	15.7	65	11.8	160	13.9
Grade 9	60	9.9	35	6.4	95	8.2
Grade 10	90	14.9	55	10.0	145	12.6
Grade 11	55	9.1	90	16.4	145	12.6
Grade 12	100	16.5	100	18.2	200	17.3
Grade 13	15	2.5	10	1.8	25	2.2
Some University	35	5.8	50	9.1	85	7.4
University Degree	15	2.5	10	1.8	25	2.2
Column Totals	605	100.1	550	100.2	1,155	100.1

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: Uranium City, Saskatchewan

Table 8. Males Aged 15+ with Income by Type of Income, 1971

	Number of Males
Total males 15+	565
Males with any income	540
Males with employment income	530
Males with wage or salary income	490
Not available	---

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: Uranium City, Saskatchewan

Table 9. Active Labour Force[1] by Age by Sex, 1971.

Age Group	Males		Females		Total	
Years	No.	%	No.	%	No.	%
15 - 19	35	6.5	15	8.6	50	7.0
20 - 24	80	14.8	25	14.3	105	14.7
25 - 34	200	37.0	65	37.1	265	37.1
35 - 44	115	21.3	35	20.0	150	21.0
45 - 54	60	11.1	25	14.3	85	11.9
55 - 59	20	3.7	10	5.7	30	4.2
60 - 64	15	2.8	--	---	15	2.1
65+	15	2.8	--	---	15	2.1
Column Totals	540	100.0	175	100.0	715	100.1

Source: Statistics Canada, 1971 Census, Enumeration Ares Series.

[1] Active labour force includes those persons who are employed and those unemployed but actively seeking employment.

Community: Uranium City, Saskatchewan

Table 10. Active Labour Force[1] by Level of Schooling by Sex, 1971

Level of Schooling	Males		Females		Total	
	No.	%	No.	%	No.	%
Less than grade 5	25	4.6	5	2.9	30	4.2
Grades 5-8	155	28.7	30	17.1	185	25.9
Grades 9-10	145	26.9	25	14.3	170	23.8
Grades 11-13	130	24.1	45	25.7	175	24.5
Some University	35	6.5	40	22.9	75	10.5
University degree	20	3.7	5	2.9	25	3.5
Other post-secondary	30	5.6	25	14.3	55	7.7
Column Totals	540	100.1	175	100.1	715	100.1

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] Active labour force includes those persons who are employed and those unemployed but actively seeking employment.

Community: Uranium City, Saskatchewan

Table 11. Population Aged 15+ by Employment Status and Labour Experience, 1971

	Males	Female	Total
	No.	No.	No.
In Labour Force	520	165	685
Employed	490	145	635
Unemployed	30	25	55
In Experienced L.F.	515	160	675
Worked in 1970	510	155	665
Not in Labour Force	50	330	380

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Males:	Unemployment rate	5.8%
	Participation rate	91.2%
Females:	Unemployment rate	15.2%
	Participation rate	33.3%
Total:	Unemployment rate	8.0%
	Participation rate	64.3%

Community: Uranium City, Saskatchewan

Table 12. Experienced Labour Force[1] by Occupatoin by Sex, 1971

Occupation	Males		Females		Total	
	No.	%	No.	%	No.	%
Managerial,Admin.	10	1.8	--	--	10	1.4
Teaching	10	1.8	25	14.7	35	4.9
Medicine & Health	5	0.9	15	8.8	20	2.8
Technological, Social, Religous, Artistic	30	5.5	--	--	30	4.2
Clerical	10	1.8	45	26.5	55	7.7
Sales	20	3.7	30	17.6	50	7.0
Service	25	4.6	30	17.6	55	7.7
Farming	5	0.9	--	--	5	0.7
Other Primary	165	30.3	--	--	165	23.1
Processing	35	6.4	--	--	35	4.9
Machining, etc.	75	13.8	5	2.9	80	11.2
Construction	35	6.4	--	--	35	4.9
Transport Equipment Operators	45	8.3	5	2.9	50	7.0
Materials Handling	--	--	--	--	--	--
Occupation not stated	75	13.8	15	8.8	90	12.6
Column Totals	545	100.0	170	99.8	715	100.1

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] Experienced labour force includes those who have worked at some time in the past and are presently either employed or unemployed and actively seeking employment.

Community: Uranium City, Saskatchewan

Table 13. Experienced Labour Force[1] by Industry by Sex, 1971

Industry	Males		Females		Total	
	No.	%	No.	%	No.	%
Agriculture	--	--	--	--	--	--
Forestry	--	--	--	--	--	--
Fishing, Trapping	5	0.9	--	--	5	0.7
Mines, Quarries	320	59.8	15	8.6	335	47.2
Manufacturing	10	1.9	10	5.7	20	2.8
Construction	--	--	--	--	--	--
Transportation, Communication	45	8.4	5	2.9	50	7.0
Trade	55	10.3	40	22.9	95	13.4
Finance, Insurance, Real Estate	10	1.9	5	2.9	15	2.1
Service Industries	25	4.7	80	45.7	105	14.8
Public Admin. & Defense	40	7.5	10	5.7	30	7.0
Unknown	25	4.7	10	5.7	35	4.9
Column Totals	535	100.1	175	100.1	710	99.9

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] Experienced labour force includes those who have worked at some time in the past and are presently either employed or unemployed and actively seeking employment.

Community: Uranium City, Saskatchewan

Table 14. Income of Families[1] and Family Heads, 1971

Total Income of Families	$4,092,825
Average Income of Families	$ 9,398
Total Income of Family Heads	$3,469,170
Average Income of Family Heads	$ 7,970

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] A census family consists of a husband and wife (with unmarried children or no children) or a parent with one or more children, living in the same dwelling.

Community: Uranium City, Saskatchewan

Table 15. Families[1] by Number of Income Recipients, 1971

Number of Income Recipients	Families	
	No.	%
None	--	--
One	220	50.0
Two	195	44.3
Three or more	25	5.7
Column Totals	440	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] A census family consists of a husband and wife (with unmarried children or no children) or a parent with one or more children, living in the dwelling.

Community: Uranium City, Saskatchewan

Table 16. Dwellings by Tenure, 1971

Tenure	Dwellings	
	No.	%
Owned	210	42.9
Rented	280	57.1
Column Totals	490	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: Uranium City, Saskatchewan

Table 17. Dwellings by Number of Rooms, 1971

Number of Rooms	Dwellings	
	No.	%
1	10	2.0
2	5	1.0
3	35	6.9
4	125	24.5
5	190	37.3
6-7	105	20.6
8-9	30	5.9
10+	10	2.0
Column Totals	510	100.2
Average Rooms/Dwellings	5.1	

Source: Statistitc Canada, 1971 Census, Enumeration Area Series.

APPENDIX I - 6

Community: Grande Cache, Alberta

Table 1. Age - Sex Distribution, 1971

Age Group	Males		Females		Total	
Years	No.	%	No.	%	No.	%
0 - 4	225	15.8	170	14.3	395	15.1
5 - 9	185	13.0	160	13.4	345	13.2
10 - 14	135	9.5	155	13.0	290	11.1
15 - 19	105	7.4	95	8.0	200	7.7
20 - 24	160	11.3	160	13.4	320	12.3
25 - 29	160	11.3	140	11.8	300	11.5
30 - 34	125	8.8	115	9.7	240	9.2
35 - 39	100	7.0	95	8.0	195	7.5
40 - 44	85	6.0	40	3.4	125	4.8
45 - 49	55	3.9	35	2.9	90	3.4
50 - 54	25	1.8	10	0.8	35	1.3
55 - 59	30	2.1	5	0.4	35	1.3
60 - 64	10	0.7	5	0.4	15	0.6
65 - 69	--	--	--	--	--	---
70 - 74	15	1.1	5	0.4	20	0.8
75 - 79	5	0.4	--	--	5	0.2
80+	--	--	--	--	--	---
Column Totals	1,420	100.1	1,190	99.9	2,610	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: Grande Cache, Alberta

Table 2. Families[1] by Age of Family Head, 1971

Age of Family Head	Families	
Years	No.	%
Less than 25	90	16.4
25 - 34	250	45.5
35 - 44	150	27.3
45 - 54	55	10.0
55 - 64	5	0.9
65+	---	--
Column Totals	550	100.1

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] A census family consists of a husband and wife (with unmarried children or no children) or a parent with one or more unmarried children, living in the same dwelling.

Community: Grande Cache, Alberta

Table 3. Families[1] by Number of Persons, 1971

Number of Persons	Families	
	No.	%
Single persons[2]	530	49.5
2	100	9.3
3	140	13.1
4	140	13.1
5	95	8.9
6	40	3.7
7	15	1.4
8	10	0.9
9+	---	---
Column Total	1,070	99.9

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] A census family consists of a husband and wife (with unmarried children or no children) or a parent with one or more unmarried children, living in the same dwelling.

[2] Single persons were calculated as a residual.

Community: Grande Cache, Alberta

Table 4. Marital Status by Sex of Family Head,[1] 1971

Marital Status	Males		Females		Total	
	No.	%	No.	%	No.	%
Married:						
Both Spouses present	560	100.0	--	--	560	99.1
One Spouse only	---	--	5	100.0	5	8.9
Widowed	---	--	--	--	--	--
Divorced	---	--	--	--	--	--
Never Married	---	--	--	--	--	--
Column Totals	560	100.0	5	100.0	565	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] A census family consists of a husband and wife (with unmarried children or no children) or a parent with one or more unmarried children, living in the same dwelling.

Community: Grande Cache, Alberta

Table 5. Birthplace by Sex, 1971

Birthplace	Males		Females		Total	
	No.	%	No.	%	No.	%
Canada:						
Same Province	470	35.7	410	34.9	880	35.3
Other Provinces	460	35.0	415	35.3	875	35.1
United States	30	2.3	10	0.9	40	1.6
United Kingdom	275	20.9	260	22.1	535	21.5
Northern Europe	--	--	--	--	--	--
Western Europe	25	1.9	30	2.6	55	2.2
Southern Europe	10	0.8	5	0.4	15	0.6
Eastern Europe	10	0.8	10	0.9	20	0.8
Asia	30	2.3	35	3.0	65	2.6
All Other	5	0.4	--	--	5	0.2
Column Totals	1,315	100.1	1,175	100.1	2,490	99.9

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: Grande Cache, Alberta

Table 6. Persons Aged 5+ Attending School by Level of Schooling by Sex, 1971

Level of Schooling	Males		Females		Total	
	No.	%	No.	%	No.	%
Kindergarten	5	2.3	5	2.1	10	2.2
Grade 1	25	11.6	25	10.6	50	11.1
Grade 2	35	16.3	25	10.6	60	13.3
Grade 3	25	11.6	30	12.8	55	12.2
Grade 4	40	18.6	25	10.6	65	14.4
Grade 5	10	4.7	25	10.6	35	7.8
Grade 6	30	14.0	30	12.8	60	13.3
Grade 7	15	7.0	20	8.5	35	7.8
Grade 8	5	2.3	15	6.4	20	4.4
Grade 9	5	2.3	20	8.5	25	5.6
Grade 10	--	---	5	2.1	5	1.1
Grade 11	5	2.3	10	4.3	15	3.3
Grade 12	5	2.3	--	---	5	1.1
Grade 13	--	---	--	---	--	---
Some University	10	4.7	--	---	10	2.2
University degree	--	---	--	---	--	---
Column Totals	215	100.0	235	99.9	450	99.8

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: Grande Cache, Alberta

Table 7. Persons Aged 5+ not Attending School by Level of Schooling by Sex, 1971

Level of Schooling	Males		Females		Total	
	No.	%	No.	%	No.	%
No schooling (5-14)	35	5.6	--	--	35	3.2
No schooling (15+)	--	---	5	1.0	5	0.5
Grades 1-4	20	3.2	20	4.1	40	3.6
Grades 5-6	30	4.8	20	4.1	50	4.5
Grade 7	10	1.6	20	4.1	30	2.7
Grade 8	90	14.5	45	9.2	135	12.2
Grade 9	30	4.8	45	9.2	75	6.8
Grade 10	125	20.2	70	14.3	195	17.6
Grade 11	100	16.1	70	14.3	170	15.3
Grade 12	120	19.4	155	31.6	275	24.8
Grade 13	10	1.6	10	2.0	20	1.8
Some University	25	4.0	20	4.1	45	4.1
University Degree	25	4.0	10	2.0	35	3.2
Column Totals	620	99.8	490	100.0	1,110	100.3

Source: Statistics Canada, 1971 Census , Enumeration Area Series.

Community: Grande Cache, Alberta

Table 8. Males Aged 15+ with Income by Type of Income, 1971

	Number of Males
Total males 15+	805
Males with any income	745
Males with employment income	735
Males with wage or salary income	710
Not available	---

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: Grande Cache, Alberta

Table 9. Active Labour Force[1] by Age by Sex, 1971

Age Group	Males		Females		Total	
Years	No.	%	No.	%	No.	%
15 - 19	65	8.3	30	10.0	95	8.8
20 - 24	140	17.8	85	28.3	225	20.7
25 - 34	315	40.1	85	28.3	400	36.9
35 - 44	165	21.0	65	21.7	230	21.2
45 - 54	70	8.9	30	10.0	100	9.2
55 - 59	25	3.2	5	1.7	30	2.8
60 - 64	5	0.6	--	--	5	0.5
65+	--	---	--	--	---	---
Column Totals	785	99.9	300	100.0	1,085	100.1

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] Active labour force includes those persons who are employed and those unemployed but actively seeking employment.

Community: Grande Cache, Alberta

Table 10. Active Labour Force[1] by Level of Schooling by Sex, 1971

Level of Schooling	Males		Females		Total	
	No.	%	No.	%	No.	%
Less than grade 5	5	0.6	5	1.7	10	0.9
Grades 5-8	160	20.4	40	13.8	200	18.6
Grades 9 - 10	190	24.2	45	15.5	235	21.9
Grades 11 - 13	215	27.4	115	39.7	330	30.7
Some University	50	6.4	30	10.3	80	7.4
University Degree	35	4.5	25	8.6	60	5.6
Other post-secondary	130	16.6	30	10.3	160	14.9
Column Totals	785	100.1	290	99.9	1,075	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] Active labour force includes those persons who are employed and those unemployed but actively seeking employment.

Community: Grande Cache, Alberta

Table 11. Population Aged 15+ by Employment Status and Labour Experience, 1971

	Males	Females	Total
	No.	No.	No.
In Labour Force	770	280	1,050
Employed	735	245	980
Unemployed	35	40	75
In Experienced L.F.	765	280	1,045
Worked in 1970	755	230	985
Not in Labour Force	40	430	470

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Males:	Unemployment Rate	4.5%
	Participation Rate	95.1%
Females:	Unemployment Rate	14.3%
	Participation Rate	39.4%
Total:	Unemployment Rate	7.1%
	Participation Rate	69%

Community: Grande Cache, Alberta

Table 12. Experienced Labour Force[1] by Occupation by Sex, 1971

Occupation	Males		Females		Total	
	No.	%	No.	%	No.	%
Managerial, Admin.	15	1.9	5	1.7	20	1.8
Teaching	20	2.5	25	8.6	45	4.1
Medicine & Health	10	1.3	15	5.2	25	2.3
Technological, Social Religous, Artistic	30	3.8	15	5.2	45	4.1
Clerical	25	3.1	75	25.9	100	9.2
Sales	45	5.6	25	8.6	70	6.4
Service	50	6.3	80	27.6	130	11.9
Farming	--	---	--	--	--	--
Other Primary	220	27.5	10	3.4	230	21.1
Processing	10	1.3	--	--	10	0.9
Machining, etc.	110	13.8	--	--	110	10.1
Construction	80	10.0	5	1.7	85	7.8
Transport Equipment Operators	40	5.0	--	--	40	3.7
Materials Handling	80	10.0	5	1.7	85	7.8
Occupation not stated	65	8.1	30	10.3	95	8.7
Column Totals	800	100.2	290	99.9	1,090	99.9

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] Experienced labour force includes those who have worked at some time in the past and are presently either employed or unemployed and actively seeking employment.

Community: Grande Cache, Alberta

Table 13. Experienced Labour Force[1] by Industry by Sex, 1971

Industry	Males		Females		Total	
	No.	%	No.	%	No.	%
Agriculture	5	0.6	--	--	5	0.5
Forestry	5	0.6	5	1.7	10	0.9
Fishing, Trapping	--	--	--	--	--	--
Mines, Quarries	470	59.9	40	13.3	510	47.0
Manufacturing	15	1.9	5	1.7	20	1.8
Construction	60	7.6	5	1.7	65	6.0
Transportation, Communication	30	3.8	5	1.7	35	3.2
Trade	45	5.7	30	10.0	75	6.9
Finance, Insurance, Real Estate	5	0.6	10	3.3	15	1.4
Service Industries	60	7.6	155	51.7	215	19.8
Public Admin. & Defense	25	3.2	15	5.0	40	3.7
Unknown	65	8.3	30	10.0	95	8.8
Column Totals	785	99.8	300	100.1	1,085	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] Experienced labour force includes those who have worked at some time in the past and are presently either employed or unemployed and actively seeking employment.

Community: Grande Cache, Alberta

Table 14. Income of Families[1] and Family Heads, 1971

Total Income of Families	$5,622,000
Average Income of Families	$ 9,000
Total Income of Family Heads	$4,993,000
Average Income of Family Heads	$ 8,250

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] A census family consists of a husband and wife (with unmarried children or no children) or a parent with one or more children living in the same dwelling.

Community: Grande Cache, Alberta

Table 15. Families[1] by Number of Income Recipients, 1971

Number of Income Recipients	Families	
	No.	%
None	15	2.7
One	300	53.6
Two	225	40.2
Three or More	20	3.6
Column Total	560	100.1

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] A census family consists of a husband and wife (with unmarried children or no children) or a parent with one or more children, living in the same dwelling.

Community: Grande Cache, Alberta

Table 16. Dwellings by Tenure, 1971

Tenure	Dwellings	
	No.	%
Owned	440	70.4
Rented	185	29.6
Column Totals	625	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: Grande Cache, Alberta

Table 17. Dwellings by Number of Rooms, 1971

Number of Rooms	Dwellings	
	No.	%
1	5	0.8
2	10	1.6
3	45	7.2
4	90	14.4
5	175	28.0
6-7	265	42.4
8-9	25	4.0
10+	10	1.6
Column Totals	625	100.0
Average Rooms/dwelling	5.5	

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

APPENDIX I - 7

Community: Merritt, British Columbia

Table 1. Age - Sex Distribution, 1971

Age Group	Males		Females		Total	
Years	No.	%	No.	%	No.	%
0 - 4	240	8.6	260	10.1	500	9.3
5 - 9	330	11.9	270	10.5	600	11.2
10 - 14	330	11.9	315	12.2	645	12.1
15 - 19	275	9.9	285	11.1	560	10.5
20 - 24	250	9.0	250	9.7	500	9.3
25 - 29	210	7.6	205	8.0	415	7.8
30 - 34	205	7.4	155	6.0	360	6.7
35 - 39	220	7.9	135	5.2	355	6.6
40 - 44	180	6.5	175	6.8	355	6.6
45 - 49	140	5.0	150	5.8	290	5.4
50 - 54	145	5.2	105	4.1	250	4.7
55 - 59	150	5.4	65	2.5	215	4.0
60 - 64	35	1.3	65	2.5	100	1.9
65 - 69	20	0.7	35	1.4	55	1.0
70 - 74	10	0.4	25	1.0	35	0.7
75 - 79	15	0.5	35	1.4	50	0.9
80+	20	0.7	45	1.7	65	1.2
Column Totals	2,775	99.9	2,575	100.0	5,350	99.9

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: Merritt, British Columbia

Table 2. Families[1] by Age of Family Head, 1971

Age of Family Head	Families	
Years	No.	%
Less than 25	110	8.6
25 - 34	330	25.7
35 - 44	345	26.8
45 - 54	265	20.6
55 - 64	160	12.5
65+	75	5.8
Column Totals	1,285	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

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[1] A census family consists of a husband and wife (with unmarried children or no children) or a parent with one or more unmarried children, living in the same dwelling.

Community: Merritt, British Columbia

Table 3. Families[1] by Number of Persons, 1971

Number of Persons	Families	
	No.	%
Single persons[2]	260	16.5
2	370	23.4
3	255	16.1
4	280	17.7
5	220	13.9
6	85	5.4
7	50	3.2
8	35	2.2
9+	25	1.6
Column Totals	1,580	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] A census family consists of a husband and wife (with unmarried children or no children) or a parent with one or more unmarried children, living in the same dwelling.

[2] Single persons were calculated as a residual.

Community: Merritt, British Columbia

Table 4. Marital Status by Sex of Family Head[1] 1971

Marital Status	Males		Females		Total	
	No.	%	No.	%	No.	%
Married:						
Both Spouses present	1,140	94.6	--	--	1,140	86.4
One Spouse Only	30	2.5	45	39.1	75	5.7
Widowed	5	0.4	40	34.8	45	3.4
Divorced	15	1.2	20	17.4	35	2.7
Never Married	15	1.2	10	8.7	25	1.9
Column Totals	1,205	99.9	115	100.0	1,320	100.1

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] A census family consists of a husband and wife (with unmarried children or no children) or a parent with one or more unmarried children, living in the same dwelling.

Community: Merritt, British Columbia

Table 5. Birthplace by Sex, 1971

Birthplace	Males		Females		Total	
	No.	%	No.	%	No.	%
Canada:						
Same Province	1,295	50.0	1,370	55.9	2,665	52.9
Other Provinces	755	29.2	695	28.4	1,450	28.8
United States	40	1.5	50	2.0	90	1.8
United Kingdom	115	4.4	110	4.5	225	4.5
Northern Europe	15	0.6	10	0.4	25	2.5
Western Europe	110	4.2	75	3.1	185	3.7
Southern Europe	25	1.0	10	0.4	35	0.7
Eastern Europe	30	1.2	5	0.2	35	0.7
Asia	205	7.9	115	4.7	320	6.3
All Other	--	--	10	0.4	10	0.2
Column Totals	2,590	100.0	2,450	100.0	5,040	100.1

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: Merritt, British Columbia

Table 6. Persons Aged 5+ Attending School by Level of Schooling by Sex, 1971

Level of Schooling	Males		Females		Total	
	No.	%	No.	%	No.	%
Kindergarten	--	--	5	0.8	5	0.4
Grade 1	70	12.5	60	10.2	130	11.3
Grade 2	80	14.3	35	5.9	115	10.0
Grade 3	60	10.7	45	7.6	105	9.1
Grade 4	50	8.9	55	9.3	105	9.1
Grade 5	50	8.9	50	8.5	100	8.7
Grade 6	50	8.9	75	12.7	125	10.9
Grade 7	45	8.0	65	11.0	110	9.6
Grade 8	50	8.9	50	8.5	100	8.7
Grade 9	30	5.4	55	9.3	85	7.4
Grade 10	15	2.7	40	6.8	55	4.8
Grade 11	15	2.7	30	5.1	45	3.9
Grade 12	30	5.4	25	4.2	55	4.8
Grade 13	--	--	--	--	--	--
Some University	10	1.8	--	--	10	0.9
University Degree	5	0.9	--	--	5	0.4
Column Totals	560	100.0	590	99.9	1,150	99.7

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: Merritt, British Columbia

Table 7. Persons Aged 5+ not Attending School by Level of Schooling by Sex, 1971

Level of Schooling	Males		Females		Total	
	No.	%	No.	%	No.	%
No Schooling (5-14)	30	1.9	55	3.9	85	2.8
No Schooling (15+)	30	1.9	40	2.8	70	2.3
Grades 1-4	70	4.5	85	6.0	155	5.2
Grades 5-6	95	6.1	60	4.2	155	5.2
Grade 7	85	5.4	55	3.9	140	4.7
Grade 8	300	19.1	195	13.7	495	16.6
Grade 9	155	9.9	115	8.1	270	9.0
Grade 10	255	16.2	260	18.3	515	17.2
Grade 11	125	8.0	170	12.0	295	9.9
Grade 12	250	15.9	300	21.1	550	18.4
Grade 13	20	1.3	20	1.4	40	1.3
Some University	85	5.4	60	4.2	145	4.8
University Degree	70	4.5	5	0.4	75	2.5
Column Totals	1,470	100.1	1,420	100.0	2,990	99.9

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: Merritt, British Columbia

Table 8. Males Aged 15+ with Income by Type of Income, 1971

	Number of Males
Total Males 15+	1,875
Males with any income	1,725
Males with employment income	1,605
Males with wage or salary income	1,410
Not available	--

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: Merritt, British Columbia

Table 9. Active Labour Force[1] by Age by Sex, 1971

Age Group	Males		Females		Total	
Years	No.	%	No.	%	No.	%
15 - 19	140	8.5	90	14.6	230	10.1
20 - 24	270	16.3	100	16.3	370	16.3
25 - 34	385	23.3	140	22.8	525	23.1
35 - 44	400	24.2	120	19.5	520	22.9
45 - 54	265	16.0	100	16.3	365	16.1
55 - 59	115	6.9	25	4.1	140	6.2
60 - 64	45	2.7	25	4.1	70	3.1
65+	35	2.1	15	2.4	50	2.2
Column Totals	1,655	100.0	615	100.1	2,270	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] Active labour force includes those persons who are employed and those unemployed but actively seeking employment.

Community: Merritt, British Columbia

Table 10. Active Labour Force[1] by Level of Schooling by Sex, 1971

Level of Schooling	Males		Females		Total	
	No.	%	No.	%	No.	%
Less than Grade 5	60	3.7	15	2.4	75	3.3
Grades 5-8	445	27.4	70	11.4	515	23.0
Grades 9-10	420	25.8	160	26.0	580	25.9
Grades 11-13	410	25.2	225	36.6	635	28.3
Some University	120	7.4	60	9.8	180	8.0
University Degree	90	5.5	10	1.6	100	4.5
Other Post-secondary	80	4.9	75	12.2	155	6.9
Column Totals	1,625	99.9	615	100.0	2,240	99.9

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] Active labour force includes those persons who are employed and those unemployed but actively seeking employment.

Community: Merritt, British Columbia

Table 11. Population Aged 15+ by Employment Status and Labour Experience, 1971

	Males	Females	Total
	No.	No.	No.
In Labour Force	1,610	605	2,215
Employed	1,505	540	2,045
Unemployed	110	60	170
In Experienced L.F.	1,590	595	2,185
Worked in 1970	1,540	545	2,085
Not in Labour Force	255	1,090	1,345

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Males:	Unemployment Rate	6.8%
	Participation Rate	86.3%
Females:	Unemployment Rate	9.9%
	Participation Rate	35.7%
Total:	Unemployment Rate	7.7%
	Participation Rate	62.2%

Community: Merritt, British Columbia

Table 12. Experienced Labour Force[1] by Occupation by Sex, 1971

Occupation	Males		Females		Total	
	No.	%	No.	%	No.	%
Managerial , Admin.	25	1.5	5	0.8	30	1.3
Teaching	45	2.8	50	8.2	95	4.2
Medicine & Health	25	1.5	55	9.0	80	3.6
Technological,Social, Religous, Artistic	60	3.7	--	---	60	2.7
Clerical	70	4.3	190	31.1	260	11.6
Sales	145	8.9	85	13.9	230	10.2
Service	130	8.0	155	25.4	285	12.7
Farming	5	0.3	--	---	5	0.2
Other Primary	275	16.8	--	---	275	12.2
Processing	150	9.2	--	---	150	6.7
Machining, etc.	200	12.2	5	0.8	205	9.1
Construction	155	9.5	--	---	155	6.9
Transport Equipment Operators	90	5.5	5	0.8	95	4.2
Materials Handling	155	9.5	5	0.8	160	7.1
Occupation not stated	105	6.4	55	9.0	160	7.1
Column Totals	1,635	100.1	610	99.8	2,245	99.8

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] Experienced labour force includes those who have worked at some time in the past and are presently either employed or unemployed and actively seeking employment.

Community: Merritt, British Columbia

Table 13. Experienced Labour Force[1] by Industry by Sex, 1971

Industry	Males		Females		Total	
	No.	%	No.	%	No.	%
Agriculture	10	0.6	5	0.8	15	0.7
Forestry	115	7.1	5	0.8	120	5.4
Fishing, Trapping	5	0.3	--	--	5	0.2
Mines, Quarries	455	28.0	--	--	455	20.4
Manufacturing	265	16.3	25	4.1	290	13.0
Construction	155	9.5	5	0.8	160	7.2
Transportation, Communication	110	6.8	25	4.1	135	6.1
Trade	150	9.2	120	19.8	270	12.1
Finance, Insurance, Real Estste	35	2.2	30	5.0	65	2.9
Service Industries	180	11.1	305	50.4	485	21.7
Public Admin. & Defense	35	2.2	30	5.0	65	2.9
Unknown	110	6.8	55	9.1	165	7.4
Column Totals	1,625	100.1	605	99.9	2,230	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] Experienced labour force includes those who have worked at some time in the past and are presently either employed or unemployed and actively seeking employment.

Community: Merritt, British Columbia

Table 14. Income of Families[1] and Family Heads, 1971

Total Income of families	$12,448,000
Average Income of families	$ 9,250
Total Income of family heads	$10,406,000
Average Income of family heads	$ 7,880

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] A census family consists of a husband and wife (with unmarried children or no children) or a parent with one or more children, living in the same dwelling.

Community: Merritt, British Columbia

Table 15. Families[1] by Number of Income Recipients, 1971

Number of Income Recipients	Families	
	No.	%
None	10	0.8
One	530	41.9
Two	575	45.5
Three or more	150	11.9
Column Totals	1,265	100.1

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] A census family consists of a husband and wife (with unmarried children or no children) or a parent with one or more children, living in the same dwelling.

Community: Merritt, British Columbia

Table 16. Dwellings by Tenure, 1971

Tenure	Dwellings	
	No.	%
Owned	910	64.3
Rented	505	35.7
Column Totals	1,415	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: Merritt, British Columbia

Table 17. Dwellings by Number of Rooms, 1971

Number of Rooms	Dwellings	
	No.	%
1	35	2.5
2	80	5.7
3	135	9.5
4	310	21.9
5	355	25.1
6-7	360	25.4
8-9	110	7.8
10+	30	2.1
Column Totals	1,415	100.0
Average Rooms/dwelling	5.1	

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

APPENDIX I - 8

Community: Granisle, British Columbia

Table 1. Age - Sex Distribution, 1971

Age Group	Males		Females		Total	
Years	No.	%	No.	%	No.	%
0 - 4	65	18.6	70	27.5	135	22.3
5 - 9	35	10.0	20	7.8	55	9.1
10 - 14	15	4.3	20	7.8	35	5.8
15 - 19	10	2.9	25	9.8	35	5.8
20 - 24	45	12.9	50	19.6	95	15.7
25 - 29	60	17.1	15	5.9	75	12.4
30 - 34	20	5.7	15	5.9	35	5.8
35 - 39	20	5.7	15	5.9	35	5.8
40 - 44	15	4.3	10	3.9	25	4.1
45 - 49	20	5.7	10	3.9	30	5.0
50 - 54	--	---	5	2.0	5	0.8
55 - 59	5	1.4	--	---	5	0.8
60 - 64	40	11.4	--	---	40	6.6
65 - 69	--	---	--	---	--	---
70 - 74	--	---	--	---	--	---
75 - 79	--	---	--	---	--	---
80+	--	---	--	---	--	---
Column Totals	350	100.0	255	100.0	605	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: Granisle, British Columbia

Table 2. Families[1] by Age of Family Head, 1971

Age of Family Head	Families	
Years	No.	%
Less than 25	25	16.1
25 - 34	65	41.9
35 - 44	30	19.4
45 - 54	20	12.9
55 - 64	10	6.5
65+	5	3.2
Column Totals	155	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] A census family consists of a husband and wife (with unmarried children or no children) or a parent with one or more unmarried children, living in the same dwelling.

Community: Granisle, British Columbia

Table 3. Families[1] by Number of Persons, 1971

Number of Persons	Families	
	No.	%
Single Persons[2]	N/A	N/A
2	40	24.2
3	40	24.2
4	45	27.3
5	20	12.1
6	10	6.1
7	5	3.0
8	--	---
9+	5	3.0
Column Totals	165	99.9

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] A census family consists of a husband and wife (with unmarried children or no children) or a parent with one or more unmarried children, living in the same dwelling.

[2] Single persons were calculated as a residual.

Community: Granisle, British Columbia

Table 4. Marital Status by Sex of Family Head,[1] 1971

Marital Status	Males		Females		Total	
	No.	%	No.	%	No.	%
Married:						
Both Spouses present	145	96.7	--	---	145	90.6
One Spouse Only	5	3.3	5	50.0	10	6.3
Widowed	--	---	5	50.0	5	3.1
Divorced	--	---	--	---	--	---
Never Married	--	---	--	---	--	---
Column Totals	150	100.0	10	100.0	160	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] A census family consists of a husband and wife (with unmarried children or no children) or a parent with one or more unmarried children, living in the same dwelling.

Community: Granisle, British Columbia

Table 5. Birthplace by Sex, 1971

Birthplace	Males		Females		Total	
Canada:	No.	%	No.	%	No.	%
Same Province	150	42.3	140	54.9	290	47.5
Other Provinces	105	29.6	70	27.5	175	28.7
United States	15	4.2	10	3.9	25	4.1
United Kingdom	15	4.2	15	5.9	30	4.9
Northern Europe	5	1.4	5	2.0	10	1.6
Western Europe	5	1.4	5	2.0	10	1.6
Southern Europe	5	1.4	5	2.0	10	1.6
Eastern Europe	5	1.4	--	---	5	0.8
Asia	45	12.7	--	---	45	7.4
All Other	5	1.4	5	2.0	10	1.6
Column Totals	355	100.0	255	100.2	610	99.8

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: Granisle, British Columbia

Table 6. Persons aged 5+ Attending School by Level of Schooling by Sex, 1971

Level of Schooling	Males		Females		Total	
	No.	%	No.	%	No.	%
Kindergarten	--	---	--	---	--	---
Grade 1	5	10.0	5	12.5	10	11.1
Grade 2	5	10.0	10	25.0	15	16.7
Grade 3	5	10.0	--	---	5	5.6
Grade 4	5	10.0	5	12.5	10	11.1
Grade 5	5	10.0	5	12.5	10	11.1
Grade 6	5	10.0	5	12.5	10	11.1
Grade 7	5	10.0	--	---	5	5.6
Grade 8	--	---	--	---	--	---
Grade 9	5	10.0	--	---	5	5.6
Grade 10	--	---	--	---	--	---
Grade 11	--	---	5	12.5	5	5.6
Grade 12	--	---	5	12.5	5	5.6
Grade 13	--	---	--	---	--	---
Some University	10	20.0	--	---	10	11.1
University Degree	--	---	--	---	--	---
Column Totals	50	100.0	40	100.0	90	100.2

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: Granisle, British Columbia

Table 7. Persons Aged 5+ Not Attending School by Level of Schooling by Sex, 1971

Level of Schooling	Males		Females		Total	
	No.	%	No.	%	No.	%
No Schooling(5-14)	5	2.2	5	3.8	10	2.8
No Schooling (15+)	--	---	--	---	--	---
Grades 1-4	5	2.2	5	3.8	10	2.8
Grades 5-6	5	2.2	--	---	5	1.4
Grade 7	--	---	--	---	--	---
Grade 8	25	10.9	10	7.7	35	9.7
Grade 9	10	4.3	15	11.5	25	6.9
Grade 10	45	19.6	35	26.9	80	22.2
Grade 11	20	8.7	15	11.5	35	9.7
Grade 12	55	23.9	40	30.8	95	26.4
Grade 13	40	17.4	--	---	40	11.1
Some University	10	4.3	--	---	10	2.8
University Degree	10	4.3	5	3.8	15	4.2
Column Totals	230	100.0	130	99.8	360	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: Granisle, British Columbia

Table 8. Males Aged 15+ with Income by Type of Income, 1971

	Number of Males
Total males 15+	260
Males with any income	250
Males with employment income	245
Males with wage or salary income	235
Not available	---

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: Granisle, British Columbia

Table 9. Active Labour Force[1] by Age by Sex, 1971.

Age Group	Males		Females		Total	
Years	No.	%	No.	%	No.	%
15 - 19	5	2.1	5	11.1	10	3.5
20 - 24	40	16.7	10	22.2	50	17.5
25 - 34	70	29.2	15	33.3	85	29.8
35 - 44	30	12.5	5	11.1	35	12.3
45 - 54	35	14.6	5	11.1	40	14.0
55 - 59	20	8.3	5	11.1	25	8.8
60 - 64	20	8.3	--	---	20	7.0
65+	20	8.3	--	---	20	7.0
Column Totals	240	100.0	45	99.9	285	99.9

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] Active labour force includes those persons who are employed and those unemployed but actively seeking employment.

Community: Granisle, British Columbia

Table 10. Active Labour Force[1] by Level of Schooling by Sex, 1971

Level of Schooling	Males		Females		Total	
	No.	%	No.	%	No.	%
Less than Grade 5	5	2.0	5	11.1	10	3.4
Grades 5-8	35	14.3	5	11.1	40	13.8
Grades 9-10	55	22.4	15	33.3	70	24.1
Grades 11-13	115	46.9	15	33.3	130	44.8
Some University	20	8.2	5	11.1	25	8.6
University Degree	10	4.1	--	--	10	3.4
Other Post-Secondary	5	2.0	--	--	5	1.7
Column Totals	245	99.9	45	99.9	290	99.8

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] Active labour force includes those persons who are employed and those unemployed but actively seeking employment.

Community: Granisle, British Columbia

Table 11. Population Aged 15+ by Employment Status and Labour Experience, 1971

	Males	Females	Total
	No.	No.	No.
In Labour Force	240	40	280
Employed	240	40	280
Unemployed	5	--	5
In Experienced L.F.	240	40	280
Worked in 1970	240	30	270
Not in Labour Force	15	110	125

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Males:	Unemployment Rate:	2.1%
	Participation Rate:	94.1%
Females:	Unemployment Rate:	0.0%
	Participation Rate:	26.7%
Total:	Unemployment Rate:	1.8%
	Participation Rate:	69.1%

Community: Granisle, British Columbia

Table 12. Experienced Labour Force[1] by Occupation by Sex, 1971

Occupation	Males		Females		Total	
	No.	%	No.	%	No.	%
Managerial, Admin.	10	4.1	--	--	10	3.5
Teaching	--	--	5	12.5	5	1.8
Medicine & Health	--	--	--	--	--	--
Technological, Social, Religous, Artistic	20	8.2	--	--	20	7.0
Clerical	5	2.0	5	12.5	10	3.5
Sales	--	--	5	12.5	5	1.8
Service	5	2.0	15	37.5	20	7.0
Farming	--	--	--	--	--	--
Other Primary	45	18.4	5	12.5	50	17.5
Processing	15	6.1	--	--	15	5.3
Machining, etc.	30	12.2	--	--	30	10.5
Construction	10	4.1	--	--	10	3.5
Transport Equipment Operators	15	6.1	--	--	15	5.3
Materials Handling	10	4.1	--	--	10	3.5
Occupation not stated	80	32.7	5	12.5	85	29.8
Column Totals	245	100.0	40	100.0	285	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] Experienced labour force includes those who have worked at some time in the past and are presently either employed or unemployed and actively seeking employment.

Community: Granisle, British Columbia

Table 13. Experienced Labour Force[1] by Industry by Sex, 1971

Industry	Males		Females		Total	
	No.	%	No.	%	No.	%
Agriculture	--	--	--	--	--	--
Forestry	10	4.3	5	12.5	15	5.5
Fishing, Trapping	--	--	--	--	--	--
Mines, Quarries	110	46.8	5	12.5	115	41.8
Manufacturing	--	--	--	--	--	--
Construction	15	6.4	--	--	15	5.5
Transportation, Communication	5	2.1	--	--	5	1.8
Trade	--	--	5	12.5	5	1.8
Finance, Insurance, Real Estate	--	--	--	--	--	--
Service Industries	5	2.1	15	37.5	20	7.3
Public Admin.& Defense	15	6.4	5	12.5	20	7.3
Unknown	75	31.9	5	12.5	80	29.1
Column Totals	235	100.0	40	100.0	275	100.1

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] Experienced labour force includes those who have worked at some time in the past and are presently either employed or unemployed and actively seeking employment.

Community: Granisle, British Columbia

Table 14. Income of Families[1] and Family Heads, 1971

Total Income of Families	$1,385,000
Average Income of Families	$ 10,000
Total Income of Family Heads	$1,255,000
Average Income of Family Heads	$ 9,000

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] A census family consists of a husband and wife (with unmarried children or no children) or a parent with one or more children, living in the same dwelling.

Community: Granisle, British Columbia

Table 15. Families[1] by Number of Income Recipients, 1971

Number of Income Recipients	Families	
	No.	%
None	--	----
One	85	65.4
Two	45	34.6
Three or more	--	----
Column Totals	130	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] A census family consists of a husband and wife (with unmarried children or no children) or a parent with one or more children, living in the same dwelling.

Community: Granisle, B.C.

Table 16. Dwellings by Tenure, 1971

Tenure	Dwellings	
	No.	%
Owned	55	35.5
Rented	100	64.5
Column Totals	155	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: Granisle, British Columbia

Table 17. Dwellings by Number of Rooms, 1971

Number of Rooms	Dwellings	
	No.	%
1	5	3.3
2	10	6.7
3	20	13.3
4	25	16.7
5	35	23.3
6-7	50	33.3
8-9	5	3.3
10+	--	--
Column Totals	150	99.9
Average Rooms/Dwelling	4.9	

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

APPENDIX I - 9

Community: Kitimat, British Columbia

Table 1. Age - Sex Distribution, 1971

Age Group	Males		Females		Total	
Years	No.	%	No.	%	No.	%
0 - 4	625	10.8	630	11.5	1,315	11.2
5 - 9	805	12.7	755	13.8	1,560	13.2
10 - 14	725	11.5	680	12.4	1,405	11.9
15 - 19	515	8.1	485	8.9	1,000	8.5
20 - 24	585	9.3	500	9.1	1,085	9.2
25 - 29	640	10.1	535	9.8	1,175	10.0
30 - 34	550	8.7	420	7.7	970	8.2
35 - 39	465	7.4	420	7.7	885	7.5
40 - 44	485	7.7	320	5.9	805	6.8
45 - 49	325	5.1	310	5.7	635	5.4
50 - 54	260	4.1	190	3.5	450	3.8
55 - 59	160	2.5	100	1.8	260	2.2
60 - 64	85	1.3	45	0.8	130	1.1
65 - 69	30	0.5	40	0.7	70	0.6
70 - 74	5	0.1	15	0.3	20	0.2
75 - 79	--	--	15	0.3	15	0.1
80+	--	--	10	0.2	10	0.1
Column Totals	6,320	99.9	5,470	100.1	11,790	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: Kitimat, British Columbia

Table 2. Families[1] by Age of Family Head, 1971

Age of Family Head	Families	
Years	No.	%
Less than 25	240	8.5
25 - 34	890	31.4
35 - 44	890	31.4
45 - 54	565	19.9
55 - 64	210	7.4
65+	40	1.4
Column Totals	2,835	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] A census family consists of a husband and wife (with unmarried children or no children) or a parent with one or more unmarried children, living in the same dwelling.

Community: Kitimat, British Columbia

Table 3. Families[1] by Number of Persons, 1971

Number of Persons	Families	
	No.	%
Single Persons[2]	935	25.0
2	590	15.8
3	620	16.6
4	775	20.7
5	470	12.6
6	210	5.6
7	80	2.1
8	40	1.1
9+	25	0.7
Column Totals	3,745	100.2

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] A census family consists of a husband and wife (with unmarried children or no children) or a parent with one or more unmarried children, living in the same dwelling.

[2] Single persons were calculated as residual.

Community: Kitimat, British Columbia

Table 4. Marital Status by Sex of Family Head,[1] 1971

Marital Status	Males		Females		Total	
	No.	%	No.	%	No.	%
Married:						
Both Spouses present	2,690	98.0	--	--	2,690	95.7
One Spouse Only	25	0.9	35	53.8	60	2.1
Widowed	10	0.4	20	30.8	30	1.1
Divorced	5	0.2	5	7.7	10	0.4
Never Married	15	0.5	5	7.7	20	0.7
Column Totals	2,745	100.0	65	100.0	2,810	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] A census family consists of a husband and wife (with unmarried children or no children) or a parent with one or more unmarried children, living in the same dwelling.

Community: Kitimat, British Columbia

Table 5. Birthplace by Sex, 1971

Birthplace	Males		Females		Total	
	No.	%	No.	%	No.	%
Canada:						
Same Province	2,515	39.5	2,370	43.0	4,885	41.1
Other Provinces	1,720	27.0	1,455	26.4	3,175	26.7
United States	60	0.9	50	0.9	110	0.9
United Kingdom	375	5.9	360	6.5	735	6.2
Northern Europe	165	2.6	150	2.7	315	2.6
Western Europe	515	8.1	425	7.7	940	7.9
Southern Europe	705	11.1	475	8.6	1,180	9.9
Eastern Europe	170	2.7	80	1.5	250	2.1
Asia	65	1.0	45	0.8	110	0.9
All Other	75	1.2	100	1.8	175	1.5
Column Totals	6,365	100.0	5,510	99.9	11,875	99.9

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: Kitimat, British Columbia

Table 6. Persons Aged 5+ Attending School by Level of Schooling by Sex, 1971

Level of Schooling	Males		Females		Total	
	No.	%	No.	%	No.	%
Kindergarten	135	7.0	130	7.3	265	7.2
Grade 1	160	8.3	150	8.3	310	8.4
Grade 2	125	6.5	180	10.2	305	8.3
Grade 3	140	7.3	130	7.3	270	7.3
Grade 4	190	9.9	195	11.0	385	10.4
Grade 5	155	8.1	155	8.8	310	8.4
Grade 6	165	8.6	150	8.5	315	8.5
Grade 7	155	8.1	130	7.3	285	7.7
Grade 8	120	6.3	130	7.3	250	6.8
Grade 9	135	7.0	90	5.1	225	6.1
Grade 10	115	6.0	90	5.1	205	5.6
Grade 11	115	6.0	90	5.1	205	5.6
Grade 12	80	4.2	115	6.5	195	5.3
Grade 13	10	0.5	10	0.6	20	0.5
Some University	95	4.9	25	1.4	120	3.3
University Degree	25	1.3	--	---	25	0.7
Column Totals	1,920	100.0	1,770	100.0	3,690	100.1

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: Kitimat, British Columbia

Table 7. Persons Aged 5+ not Attending School by Level of Schooling by Sex, 1971

Level of Schooling	Males		Females		Total	
	No.	%	No.	%	No.	%
No Schooling (5-14)	70	1.8	60	1.8	130	1.8
No Schooling (15+)	35	0.9	50	1.5	85	1.2
Grades 1-4	205	5.1	175	5.3	380	5.2
Grades 5-6	145	3.6	155	4.7	300	4.1
Grade 7	140	3.5	110	3.3	250	3.4
Grade 8	540	13.5	375	11.3	915	12.5
Grade 9	285	7.1	215	6.5	500	6.8
Grade 10	620	15.5	520	15.6	1,140	15.6
Grade 11	500	12.5	400	12.0	900	12.3
Grade 12	815	20.4	815	24.5	1,630	22.3
Grade 13	165	4.1	145	4.4	310	4.2
Some University	220	5.5	195	5.9	415	5.7
University Degree	250	6.3	110	3.3	360	4.9
Column Totals	3,990	99.8	3,325	100.1	7,315	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: Kitimat, British Columbia

Table 8. Males Aged 15+ with Income by Type of Income, 1971

	Number of Males
Total Males 15+	4,170
Males with any income	3,885
Males with employment income	3,850
Males with wage or salary income	3,695
Not available.	--

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: Kitimat, British Columbia

Table 9. Active Labour Force[1] by Age by Sex, 1971.

Age Group	Males		Females		Total	
Years	No.	%	No.	%	No.	%
15 - 19	285	7.3	165	11.6	450	8.5
20 - 24	630	16.2	235	16.5	865	16.3
25 - 34	1,150	29.5	400	28.2	1,550	29.1
35 - 44	970	24.9	330	23.2	1,300	24.4
45 - 54	650	15.5	215	15.1	820	15.4
55 - 59	150	3.8	45	3.2	195	3.7
60 - 64	75	1.9	20	1.4	95	1.8
65+	35	0.9	10	0.7	45	0.8
Column Totals	3,900	100.0	1,420	99.9	5,320	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] Active labour force includes those persons who are employed and those unemployed but actively seeking employment.

Community: Kitimat, British Columbia

Table 10. Active Labour Force[1] by Level of Schooling by Sex, 1971.

Level of Schooling	Males		Females		Total	
	No.	%	No.	%	No.	%
Less than grade 5	150	3.8	25	1.7	175	3.3
Grades 5-8	765	19.6	155	10.8	920	17.2
Grades 9-10	935	23.9	305	21.3	1,240	23.2
Grades 11-13	1,080	27.6	530	36.9	1,610	30.1
Some University	295	7.5	145	10.1	440	8.2
University Degree	265	6.8	75	5.2	340	6.4
Other Post-Secondary	420	10.7	200	13.9	620	11.6
Column Totals	3,910	99.9	1,435	99.9	5,345	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] Active labour force includes those persons who are employed and those unemployed but actively seeking employment.

Community: Kitimat, British Columbia

Table 11. Population Aged 15+ by Employment Status and Labour Experience, 1971

	Males	Females	Total
	No.	No.	No.
In Labour Force	3,860	1,355	5,215
Employed	3,750	1,245	4,995
Unemployed	110	115	225
In Experienced L.F.	3,840	1,325	5,165
Worked in 1970	3,775	1,245	5,020
Not in Labour Force.	340	2,080	2,420

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Males:	Unemployment Rate:	2.8%
	Participation Rate:	91.9%
Females:	Unemployment Rate:	8.5%
	Participation Rate:	39.4%
Total:	Unemployment Rate:	4.3%
	Participation Rate:	68.3%

Community: Kitimat, British Columbia

Table 12. Experienced Labour Force[1] by Occupation by Sex, 1971

Occupation	Males		Females		Total	
	No.	%	No.	%	No.	%
Managerial, Admin.	145	3.7	15	1.1	160	3.0
Teaching	90	2.3	90	6.5	180	3.4
Medicine & Health	35	0.9	155	11.2	190	3.6
Technological, Social, Religous, Artistic	260	6.7	25	1.8	285	5.4
Clerical	160	4.1	500	36.2	660	12.5
Sales	155	4.0	175	12.7	330	6.3
Service	235	6.0	210	15.2	445	8.4
Farming	20	0.5	--	--	20	0.4
Other Primary	80	2.1	--	--	80	1.5
Processing	965	24.7	10	0.7	975	18.5
Machining, Etc.	605	15.5	--	--	605	11.5
Construction	335	8.6	5	0.4	340	6.4
Transport Equipment Operators	150	3.8	15	1.1	165	3.1
Materials Handling	385	9.9	30	2.2	415	7.9
Occupation not stated	280	7.2	150	10.9	430	8.1
Column Totals	3,900	100.0	1,380	100.0	5,280	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] Experienced labour force includes those who have worked at some time in the past and are presently either employed or unemployed and actively seeking employment

Community: Kitimat, British Columbia

Table 13. Experienced Labour Force[1] by Industry by Sex, 1971.

Industry	Males		Females		Total	
	No.	%	No.	%	No.	%
Agriculture	--	--	--	--	--	--
Forestry	110	2.8	20	1.5	130	2.5
Fishing,Trapping	--	--	--	--	--	--
Mines, Quarries	--	--	--	--	--	--
Manufacturing	2,560	65.4	180	13.2	2,740	51.9
Construction	215	5.5	35	2.6	250	4.7
Transportation, Communication	145	3.7	65	4.8	210	4.0
Trade	260	6.6	275	20.1	535	10.1
Finance, Insurance, Real Estate	50	1.3	65	4.8	115	2.2
Service Industries	275	7.0	580	42.5	855	16.2
Public Admin. & Defense	75	1.9	40	2.9	115	2.2
Unknown	225	5.7	105	7.7	330	6.3
Column Totals	3,915	99.9	1,365	100.1	5,280	100.1

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] Experienced labour force includes those who have worked at some time in the past and are presently either employed or unemployed and actively seeking employment.

Community: Kitimat, British Columbia

Table 14. Income of Families[1] and Family Heads, 1971

Total Income of Families	$31,579,000
Average Income of Families	$ 11,100
Total Income of Family Heads	$26,149,000
Average Income of Family Heads	$ 9,350

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] A census family consists of a husband and wife (with unmarried children or no children) or a parent with one or more children, living in the same dwelling.

Community: Kitimat, B.C.

Table 15. Families[1] by Number of Income Recipients, 1971

Number of Income Recipients	Families	
	No.	%
None	10	0.4
One	1,220	43.6
Two	1,285	46.0
Three or more	280	10.0
Column Totals	2,795	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] A census family consists of a husband and wife (with unmarried children or no children) or a parent with one or more children, living in the same dwelling.

Community: Kitimat, British Columbia

Table 16. Dwellings by Tenure, 1971.

Tenure	Dwellings	
	No.	%
Owned	1,850	63.1
Rented	1,080	36.9
Column Totals	2,930	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: Kitimat, British Columbia

Table 17. Dwellings by Number of Rooms, 1971

Number of Rooms	Dwellings	
	No.	%
1	10	0.4
2	50	1.8
3	215	7.7
4	490	17.6
5	880	31.6
6-7	940	33.8
8-9	165	5.9
10+	35	1.3
Column Totals	2,785	100.1
Average Rooms/dwelling	5.4	

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

APPENDIX II - 1

Community: All Northern Mining Communities

Table 1. Age - Sex Distribution, 1971

Age Group	Males		Females		Total	
Years	No.	%	No.	%	No.	%
0 - 4	3,075	13.3	2,890	13.9	5,965	13.6
5 - 9	3,085	13.3	2,860	13.8	5,945	13.5
10 - 14	2,380	10.3	2,325	11.2	4,705	10.7
15 - 19	1,860	8.0	1,795	8.6	3,655	8.3
20 - 24	2,345	10.1	2,515	12.1	4,860	11.1
25 - 29	2,585	11.2	2,205	10.6	4,790	10.9
30 - 34	1,945	8.4	1,580	7.6	3,525	8.0
35 - 39	1,625	7.0	1,290	6.2	2,915	6.6
40 - 44	1,395	6.0	1,035	5.0	2,430	5.5
45 - 49	995	4.3	895	4.3	1,890	4.3
50 - 54	795	3.4	590	2.8	1,385	3.2
55 - 59	900	3.9	500	2.4	1,400	3.2
60 - 64						
65 - 69	195	0.8	285	1.4	480	1.1
70 - 74						
75 - 70						
80+						
Column Totals	12,180	100.0	20,765	99.9	43,945	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: All Northern Mining Communities

Table 2. Families[1] by Age of Family Head, 1971

Age of Family Head	Families	
Years	No.	%
Less than 25	1,080	10.6
25 - 34	3,845	37.7
35 - 44	2,750	26.9
45 - 54	1,655	16.2
55 - 64	680	6.7
65+	200	2.0
Column Totals	10,210	100.1

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

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[1] A census family consists of a husband and wife (with unmarried children or no children) or a parent with one or more unmarried children, living in the same dwelling.

Community: All Northern Mining Communities

Table 3. Families[1] by Number of Persons, 1971

Number of Persons	Families	
	No.	%
Single persons[2]	4,075	28.6
2	2,120	14.9
3	2,310	16.2
4	2,610	18.3
5	1,615	11.3
6	825	5.8
7	370	2.6
8	190	1.3
9+	135	0.9
Column Totals	14,250	99.9

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] A census family consists of a husband and wife (with unmarried children or no children) or a parent with one or more unmarried children, living in the same dwelling.

[2] Single persons were calculated as a residual.

Community: All Northern Mining Communities

Table 4. Marital Status by Sex of Family Head,[1] 1971

Marital Status	Males		Females		Total	
	No.	%	No.	%	No.	%
Married:						
Both Spouses present						
One Spouse only						
Widowed		"NOT COMPILED"				
Divorced						
Never Married						
Column Totals						

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] A census family consists of a husband and wife (with unmarried children or no children) or a parent with one or more unmarried children, living in the same dwelling.

Community: All Northern Mining Communities

Table 5. Birthplace by Sex, 1971

Birthplace	Males		Females		Total	
	No.	%	No.	%	No.	%
Canada:						
Same Province	12,655	54.9	12,165	58.5	24,820	56.6
Other Provinces	5,915	25.7	5,235	25.2	11,150	25.4
United States	225	1.0	165	0.8	390	0.9
United Kingdom	1,125	4.9	1,025	4.9	2,150	4.9
Northern Europe	230	1.0	200	1.0	430	1.0
Western Europe	965	4.2	785	3.8	1,750	4.0
Southern Europe	1,000	4.3	625	3.0	1,625	3.7
Eastern Europe	365	1.6	175	0.8	540	1.2
Asia	420	1.8	240	1.2	660	1.5
All Other	160	0.7	190	0.9	350	0.8
Column Totals	23,060	100.1	20,805	100.1	43,865	100.0

Source: Statistics Canada, *1971 Census*, Enumeration Area Series.

Community: All Northern Mining Communities

Table 6. Persons Aged 5+ Attending School by Level of Schooling by Sex, 1971.

Level of Schooling	Males		Females		Total	
	No.	%	No.	%	No.	%
Kindergarten						
Grade 1						
Grade 2						
Grade 3						
Grade 4						
Grade 5						
Grade 6						
Grade 7						
Grade 8	"NOT COMPILED"					
Grade 9						
Grade 10						
Grade 11						
Grade 12						
Grade 13						
Some University						
University Degree						
Column Totals						

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: All Northern Mining Communities

Table 7. Persons Aged 5+ not Attending School by Level of Schooling by Sex, 1971

Level of Schooling	Males		Females		Total	
	No.	%	No.	%	No.	%
No Schooling (5-14)	260	1.9	295	2.4	555	2.2
No Schooling (15+)	55	0.4	165	1.4	220	0.9
Grades 1-4	555	4.1	505	4.2	1,060	4.1
Grades 5-6	630	4.6	565	4.7	1,195	4.7
Grade 7	570	4.2	520	4.3	1,090	4.2
Grade 8	1,685	12.4	1,345	11.2	3,030	11.8
Grade 9	1,370	10.1	1,300	10.8	2,670	10.4
Grade 10	2,205	16.2	1,885	15.6	4,090	15.9
Grade 11	2,395	17.6	2,095	17.4	4,490	17.5
Grade 12	1,905	14.0	2,075	17.2	3,980	15.5
Grade 13	480	3.5	360	3.0	840	3.3
Some University	780	5.7	660	5.5	1,440	5.6
University Degree	715	5.3	285	2.4	1,000	3.9
Column Totals	13,605	100.0	12,055	100.1	25,660	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: All Northern Mining Communities

Table 8. Males Aged 15+ with Income by Type of Income, 1971

	Number of Males
Total Males 15+	
Males with Any Income	
Males with Employment Income	
Males with Wage or Salary Income	"NOT COMPILED"
Not Available	

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: All Northern Mining Communities

Table 9. Active Labour Force[1] by Age by Sex, 1971

Age Group	Males		Females		Total	
Years	No.	%	No.	%	No.	%
15 - 19	955	7.1	605	13.5	1,560	8.7
20 - 24	2,185	16.1	950	21.1	3,135	17.4
25 - 34	4,455	32.9	1,260	28.0	5,715	31.7
35 - 44	3,070	22.7	895	19.9	3,965	22.0
45 - 54	1,915	14.2	565	12.6	2,480	13.8
55 - 59	550	4.1	125	2.8	675	3.7
60 - 64	260	1.9	70	1.6	330	1.8
65+	140	1.0	25	0.6	165	0.9
Column Totals	13,530	100.0	4,495	100.1	18,025	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] Active labour force includes those persons who are employed and those unemployed but actively seeking employment.

Community: All Northern Mining Communities

Table 10. Active Labour Force[1] by Level of Schooling by Sex, 1971

Level of Schooling	Males		Females		Total	
	No.	%	No.	%	No.	%
Less than Grade 5	395	2.9	85	1.9	480	2.6
Grades 5-8	2,720	20.1	530	11.6	3,250	17.4
Grades 9-10	3,675	27.2	1,045	22.8	4,720	25.2
Grades 11-13	3,830	28.3	1,520	33.2	5,350	28.6
Some University	1,000	7.4	500	10.9	2,100	11.2
University Degree	750	5.5	235	5.1	985	5.3
Other Post-Secondary	1,145	8.5	665	14.5	1,810	9.7
Column Totals	13,515	99.9	4,580	100.0	18,695	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] Active labour force includes those persons who are employed and those unemployed but actively seeking employment.

Community: All Northern Mining Communities

Table 11. Population Aged 15+ by Employment Status and Labour Experience, 1971

	Males	Females	Total
	No.	No.	No.
In Labour Force			
Employed			
Unemployed			
In Experienced L.F.		"NOT COMPILED"	
Worked in 1970			
Not in Labour Force			

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: All Northern Mining Communities

Table 12. Experienced Labour Force[1] by Occupation by Sex, 1971

Occupation	Males		Females		Total	
	No.	%	No.	%	No.	%
Managerial, Admin.	380	2.8	65	1.5	455	2.5
Teaching	270	2.0	455	10.4	725	4.1
Medicine & Health	125	0.9	420	9.6	545	3.1
Technological, Social, Religous, Artistic	795	5.9	75	1.7	870	4.9
Clerical	545	4.1	1,410	32.3	1,955	11.0
Sales	575	4.3	450	10.3	1,025	5.8
Service	845	6.3	835	19.1	1,680	9.5
Farming	35	0.3	--	--	35	0.2
Other Primary	2,050	15.3	35	0.8	2,085	11.7
Processing	1,455	10.9	10	0.2	1,465	8.2
Machining, etc.	2,010	15.0	30	0.7	2,040	11.5
Construction	1,275	9.5	10	0.2	1,285	7.2
Transport Equipment Operators	780	5.8	25	0.6	805	4.5
Materials Handling	1,105	8.3	45	1.0	1,150	6.5
Occupation not stated	1,145	8.3	505	11.6	1,650	9.3
Column Totals	13,390	100.0	4,370	100.0	17,760	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] Experienced labour force includes those who have worked at some time in the past and are presently either employed or unemployed and actively seeking employment.

Community: All Northern Mining Communities

Table 13. Experienced Labour Force[1] by Industry by Sex, 1971

Industry	Males		Females		Total	
	No.	%	No.	%	No.	%
Agriculture	15	0.1	5	0.1	20	0.1
Forestry	245	1.8	35	0.8	280	1.6
Fishing, Trapping	10	0.1	--	--	10	0.1
Mines, Quarries	5,445	40.8	225	5.1	5,670	32.0
Manufacturing	2,950	22.1	235	5.4	3,185	18.0
Construction	695	5.2	70	1.6	765	4.3
Transportation, Communication	475	3.6	145	3.3	620	3.5
Trade	900	6.7	740	16.9	1,640	9.3
Finance, Insurance, Real Estate	140	1.0	215	4.9	355	2.0
Service Industries	1,030	7.7	2,060	47.0	3,090	17.4
Public Admin. & Defense	420	3.1	190	4.3	610	3.4
Unknown	1,010	7.6	465	10.6	1,475	8.3
Column Totals	13,335	99.8	4,385	100.0	17,720	100.0

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] Experienced labour force includes those who have worked at some time in the past and are presently either employed or unemployed and actively seeking employment.

Community: All Northern Mining Communities

Table 14. Income of Families[1] and Family Heads, 1971

Average Income of Families	$	10,673
Average Income of Family Heads	$	9,285

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] A census family consists of a husband and wife (with unmarried children or no children) or a parent with one or more children, living in the same dwelling.

Community: All Northern Mining Communities

Table 15. Families[1] by Number of Income Recipients, 1971

Number of Income Recipients	Families	
	No.	%
None	"NOT COMPILED"	
One		
Two		
Three or More		

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] A census family consists of a husband and wife (with unmarried children or no children) or a parent with one or more children, living in the same dwelling.

Community: All Northern Mining Communities

Table 16. Dwellings by Tenure, 1971

Tenure	Dwellings	
	No.	%
Owned	"NOT COMPILED"	
Rented		
Column Totals		

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: All Northern Mining Communities

Table 17. Dwellings by Number of Rooms, 1971

Number of Rooms	Dwellings	
	No.	%
1	180	1.7
2	255	2.4
3	705	6.7
4	1,715	16.4
5	3,125	29.8
6-7	3,890	37.1
8-9	490	4.7
10+	115	1.1
Column Totals	10,475	99.9
Average Rooms/Dwelling	5.3	

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

APPENDIX II - 2

Community: Province of Saskatchewan

Table 1. Age - Sex Distribution, 1971

Age Group	Males		Females		Total	
Years	No.	%	No.	%	No.	%
0 - 4	40,460	8.6	38,705	8.5	79,165	8.5
5 - 9	50,425	10.7	48,580	10.7	99,005	10.7
10 - 14	52,260	11.1	49,995	11.0	102,260	11.0
15 - 19	48,920	10.4	46,845	10.3	95,760	10.3
20 - 24	35,205	7.5	33,650	7.4	68,855	7.4
25 - 29	25,860	5.7	26,160	5.7	53,020	5.7
30 - 34	23,835	5.1	23,475	5.2	47,310	5.1
35 - 39	24,705	5.2	23,630	5.2	48,335	5.2
40 - 44	25,970	5.5	24,730	5.4	50,700	5.5
45 - 49	26,185	5.6	25,935	5.7	52,120	5.6
50 - 54	24,950	5.3	24,770	5.4	49,720	5.4
55 - 59	23,575	5.0	23,105	5.1	46,680	5.0
60 - 64	19,810	4.2	18,710	4.1	38,520	4.2
65 - 69	16,170	3.4	14,915	3.3	31,085	3.4
70 - 74	11,265	2.4	11,735	2.6	23,000	2.5
75 - 79	9,080	1.9	9,230	2.0	18,305	2.0
80+	11,055	2.3	11,350	2.5	22,400	2.4
Column Totals	470,725	99.9	455,515	100.1	926,242	99.9

Source: Statistics Canada, _1971 Census_.

Community: Province of Saskatchewan

Table 2. Families[1] by Age of Family Head, 1971

Age of Family Head	Families	
Years	No.	%
less than 25	12,925	6.0
25 - 34	40,770	18.8
35 - 44	44,780	20.7
45 - 54	45,385	21.0
55 - 64	37,225	17.2
65+	35,240	16.3
Column Totals	216,325	100.0

Source: Statistics Canada, 1971 Census.

[1] A census family consists of a husband and wife (with unmarried children or no children) or a parent with one or more unmarried children, living in the same dwelling.

Community: Province of Saskatchewan

Table 3. Families[1] by Number of Persons, 1971

Number of Persons	Families	
	No.	%
Single persons[2]	120,117	35.8
2	71,575	21.3
3	41,405	12.3
4	41,450	12.3
5	28,000	8.3
6	16,890	5.0
7	8,530	2.5
8	3,740	1.1
9+	4,170	1.2
Column Totals	335,877	99.8

Source: Statistics Canada, 1971 Census.

[1] A census family consists of a husband and wife (with unmarried children or no children) or a parent with one or more unmarried children, living in the same dwelling.

[2] Single persons were calculated as a residual.

Community: Province of Saskatchewan

Table 4. Marital Status by Sex of Family Head[1], 1971

Marital Status	Males		Females		Total	
	No.	%	No.	%	No.	%
Married:						
Both Spouses present						
One Spouse only						
Widowed			"NOT COMPILED"			
Divorced						
Never Married						
Column Totals						

Source: Statistics Canada, *1971 Census*, Enumeration Area Series

[1] A census family consists of a husband and wife (with unmarried children or no children) or a parent with one or more unmarried children, living in the same dwelling.

Community: Province of Saskatchewan

Table 5. Birthplace by Sex, 1971

Birthplace	Males		Females		Total	
	No.	%	No.	%	No.	%
Canada:						
Same Province	362,330	76.9	347,515	76.4	709,850	76.6
Other Provinces	52,665	11.2	53,040	11.7	105,710	11.4
United States	11,500	2.4	12,285	2.7	23,785	2.6
United Kingdom	13,620	2.9	15,220	3.3	28,835	3.1
Northern Europe	3,545	0.8	2,610	0.6	6,165	0.7
Western Europe	8,010	1.7	7,440	1.6	15,450	1.7
Southern Europe	1,640	0.3	1,225	0.3	2,860	0.3
Eastern Europe	14,700	3.1	12,765	2.8	27,460	3.0
Asia	2,145	0.5	1,810	0.4	3,955	0.4
All other	1,120	0.2	1,050	0.2	2,175	0.2
Column Totals	471,275	100.0	454,960	100.0	926,245	100.0

Source: Statistics Canada, 1971 Census.

Community: Province of Saskatchewan

Table 6. Persons Aged 5+ Attending School by Level of Schooling by Sex, 1971

Level of Schooling						
	No.	%	No.	%	No.	%
Kindergarten						
Grade 1						
Grade 2						
Grade 3						
Grade 4						
Grade 5						
Grade 6						
Grade 7						
Grade 8			"NOT COMPILED"			
Grade 9						
Grade 10						
Grade 11						
Grade 12						
Grade 13						
Some University						
University degree						
Column Totals						

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: Province of Saskatchewan

Table 7. Persons Aged 5+ Not Attending School by Level of Schooling by Sex, 1971

Level of Schooling	Males		Females		Total	
	No.	%	No.	%	No.	%
No schooling (5-14)						
No schooling (15+)	38,350	13.3	33,820	12.9	2,090	13.1
Grades 1 - 4						
Grade 5 - 6	105,360	36.6	83,210	31.7	188,565	34.3
Grade 7						
Grade 8						
Grade 9	61,790	21.5	58,170	22.2	119,950	21.8
Grade 10						
Grade 11	19,835	7.0	26,480	10.1	46,305	8.4
Grade 12	34,200	11.9	35,375	13.5	69,575	12.7
Grade 13	1,100	0.4	1,900	0.7	3,000	0.5
Some University	13,875	4.8	17,595	6.7	31,465	5.7
University Degree	13,200	4.6	5,750	2.2	18,940	3.4
Column Totals	287,710	100.1	262,300	100.0	549,890	99.9

Source: Statistics Canada, 1971 Census.

Community: Province of Saskatchewan

Table 8. Males Aged 15+ with Income by Type of Income, 1971

	Number of Males
Total males 15+	
Males with any income	"NOT COMPILED"
Males with employment income	
Males with wage or salary income	
Not available	

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: Province of Saskatchewan

Table 9. Active Labour Force[1] by Age by Sex, 1971.

Age Group	Males		Females		Total	
Years	No.	%	No.	%	No.	%
15 - 19	28,700	11.4	15,310	12.3	44,015	11.7
20 - 24	31,615	12.5	20,400	16.4	52,015	13.8
25 - 34	47,625	18.9	21,295	17.1	68,915	18.3
35 - 44	47,665	18.9	23,155	18.6	70,820	18.8
45 - 54	47,155	18.7	24,660	19.8	71,810	19.1
55 - 59	20,375	8.1	9,945	8.0	30,320	8.0
60 - 64	15,470	6.1	5,885	4.7	21,355	5.7
65+	13,635	5.4	3,935	3.2	17,565	4.7
Column Totals	252,240	100.0	124,585	100.1	376,815	100.1

Source: Statistics Canada, 1971 Census.

[1] Active labour force includes those persons who are employed and those unemployed but actively seeking employment.

Community: Province of Saskatchewan

Table 10. Active Labour Force[1] by Level of Schooling by Sex, 1971.

Level of Schooling	Males		Females		Total	
	No.	%	No.	%	No.	%
Less than grade 5	10,125	4.0	2,925	2.3	13,045	3.5
Grades 5-8	77,545	30.7	24,470	19.6	102,020	27.1
Grades 9-10	60,250	23.9	25,775	20.7	86,025	22.8
Grades 11-13	59,320	23.5	34,635	27.8	93,860	24.9
Some University	19,075	7.6	14,400	11.6	33,475	8.9
University degree	14,590	5.8	4,620	3.7	19,210	5.1
Other post-secondary	11,430	4.5	17,770	14.3	29,195	7.7
Column Totals	252,335	100.0	124,595	100.0	376,830	100.0

Source: Statistics Canda, 1971 Census.

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[1] Active labour force includes those persons who are employed and those unemployed but actively seeking employment.

Community: Province of Saskatchewan

Table 11. Population Aged 15+ by Employment Status and Labour Experience, 1971.

	Males		Females		Total	
	No.	%	No.	%	No.	%
In Labour Force						
Employed						
In Experienced L.F.						
worked in 1970			"NOT COMPILED"			
Not in Labour Force						

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: Province of Saskatchewan

Table 12. Experienced Labour Force[1] by Occupation by Sex, 1971

Occupation	Males		Females		Total	
	No.	%	No.	%	No.	%
Managerial,Admin.	9,830	3.9	2,060	1.7	11,890	3.2
Teaching	5,685	2.3	9,290	7.7	14,970	4.0
Medicine & Health	3,320	1.3	11,115	9.2	14,435	3.9
Technolocial,Social Religious,Artistic	9,930	4.0	2,190	1.8	12,130	3.3
Clerical	11,025	4.4	28,945	23.9	39,975	10.8
Sales	21,945	8.8	9,915	8.2	31,865	8.6
Service	18,060	7.2	21,975	18.1	40,040	10.8
Farming	82,195	32.9	19,465	16.0	101,660	27.4
Other Primary	4,480	1.8	45	0.0	4,525	1.2
Processing	5,225	2.1	765	0.6	5,990	1.6
Machining, etc.	16,040	6.4	1,180	1.0	17,215	4.6
Construction	20,170	8.1	160	0.1	20,330	5.5
Transport Equipment Operators	12,220	4.9	285	0.2	12,500	3.4
Materials Handling	6,595	2.6	440	0.4	7,035	1.9
Occupation not stated	22,980	9.2	13,515	11.1	36,505	9.8
Column Totals	249,700	99.9	121,345	100.0	371,065	100.0

Source: Statistics Canada, 1971 Census.

[1] Experienced labour force includes those who have worked at some time in the past and are presently either employed or unemployed and actively seeking employment.

Community: Province of Saskatchewan

Totai 13. Experienced Labour Force[1] by Industry by Sex, 1971

Industry	Males		Females		Total	
	No.	%	No.	%	No.	%
Agriculture	80,770	32.3	19,905	16.4	100,675	27.1
Forestry	875	0.4	30	0.0	915	0.2
Fishing,Trapping	265	0.1	15	0.0	280	0.1
Mines, Quarries	7,105	2.8	265	0.2	7,370	2.0
Manufacturing	16,490	6.6	3,405	2.8	19,895	5.4
Construction	17,140	6.9	790	0.7	17,930	4.8
Transportation, Communication	23,240	9.3	4,495	3.7	27,735	7.5
Trade	33,900	13.6	17,795	14.7	51,695	13.9
Finance,Insurance, Real Estate	5,075	2.0	5,515	4.5	10,595	2.9
Service Industries	31,545	12.6	50,125	41.3	81,675	22.0
Public Admin. & Defense	19,255	7.7	7,180	5.9	26,430	7.1
Unknown	14,055	5.6	11,840	9.8	25,875	7.0
Column Totals	249,715	99.9	121,360	100.0	371,070	100.0

Source: Statistics Canada, 1971 Census.

[1] Experienced labour force includes those who have worked at some time in the past and are presently either employed or unemployed and actively seeking employment.

Community: Province of Saskatchewan

Table 14. Income of Families[1] and Family Heads, 1971

Total Income of families	$
Average Income of families	$ 7,328
Total Income of family heads	$
Average Income of family heads	$5,761

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

[1] A census family consists of a husband and wife (with unmarried children or no children) or a parent with one or more children living in the same dwelling.

Community: Province of Saskatchewan

Table 15. Families[1] by number of Income Recipients, 1971

Number of Income Recipients	Families	
	No.	%
None		
One		
Two	"NOT COMPILED"	
Three or more		
Column Totals		

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

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[1] A census family consists of a husband and wife (with unmarried children or no children) or a parent with one or more children, living in the same dwelling.

Community: Province of Saskatchewan

Table 16. Dwellings by Tenure, 1971

Tenure	Dwellings	
	No.	%
Owned	"NOT COMPILED"	
Rented		
Column Totals		

Source: Statistics Canada, 1971 Census, Enumeration Area Series.

Community: Province of Saskatchewan

Table 17. Dwellings by Number of Rooms, 1971

Number of Rooms	Dwellings	
	No.	%
1	5,080	1.9
2	9,860	3.7
3	23,190	8.7
4	53,235	20.0
5	66,245	24.9
6 - 7	78,860	29.6
8 - 9	23,225	8.7
10+	6,870	2.6
Column Totals	266,565	100.1
Average Rooms/dwelling	5.3	

Source: Statistics Canada, 1971 Census.

APPENDIX III - 1 - 1
Summary of Dunn and Bradstreet Listings
September, 1975

	SIC	Granisle, B.C.	Leaf Rapids, Man.	Uranium City, Sask.	Schefferville, Quebec	Grande Cache, Alta.	Merrit, B.C.	Elliot Lake, Ont.	Fermont, Que., Wabush & Labrador city, Nfld.	Kitimat, B.C.
Unique SIC Codes		5	19	23	35	33	66	56	82	75
Grocery store, Confectionery	5411, 5441	X	X	X	X	X	X	X	X	X
Bank	60__	X	X	X	X	X	X	X	X	X
Eating and drinking places	5812, 5813		X	X	X	X	X	X	X	X
Automotive dealers & gasoline S.S.	55__		X	X	X	X	X	X	X	X
Clothing stores	56__	X		X	X	X	X	X	X	X
Construction, general contractors	15__, 16__	X	X	X		X	X	X	X	X
Construction, special Contractors	17__		X	X	X	X	X	X	X	X
Trans., motor freight, water	42__, 44__		X	X	X	X	X	X	X	X
Drug store	5912		X	X		X	X	X	X	X
Other misc. retail	5661, 59__ nec		X		X	X	X	X	X	X
Furniture, home furnishings	57__		X	X	X		X	X	X	X
General merchandise stores	53__		X	X		X	X	X	X	X
Hotels, motor courts, etc.	70__		X	X	X	X	X	X	X	X
Bldg. materials, hardware	52__		X	X		X	X	X	X	X
Mining	10__-14__			X	X	X	X	X	X	
Business services, equipment & leasing,janitorial,advertising	73__		X		X	X			X	X
Automotive repair,auto rental	75__		X		X		X	X	X	
Wholesalers, nondurables	51__		X	X	X		X		X	
Mfg. publishers, printing	27__			X		X	X	X		X
Amusement, recreation	79__					X	X	X	X	X
Miscellaneous repair	76__				X		X	X	X	X
Personal services	72__				X		X	X	X	X
Wholesalers, durables	50__					X	X	X	X	X
Trans.; local, suburban	41__			X				X	X	X
Trans.; air	45__			X	X				X	
Mfg. lumber,wood products	24__-26__						X	X		X
Other mfg.	20__,28__-39__						X	X		X
Holding cos.	67__						X	X		X
Public utility services & comm.	49__, 48__						X		X	
Trans. services	47__						X		X	
Primary prod'n(agr.,fishing, forestry)	01__-09__						X			
1971 Census Population		605	2,500	1,865	3,235	2,610	5,350	7,510	10,985+	11,790

APPENDIX III - 1 - 2

Community Services

	Granisle, B.C.	Leaf Rapids, Man.	Uranium City, Sask.	Schefferville, Quebec	Grande Cache, Alta.	Merrit B.C.	Elliot Lake, Ont.	Fermont, Que., Wabush and Labrador City Nfld.	Kitimat, B.C.
Communications									
Newspaper	daily	bi-monthly	X	daily	weekly	weekly	daily	daily	daily
Radio station or reception	X	--	X	satellite	X	X	X	X	X
Television station reception	X	microwave	X	satellite	X	X	X	X	X
Telephone - local	X	X	X	X	X	X	X	X	X
Telephone - long distance	X	X	X	X	X	X	X	X	X
Transportation									
Air	X	X	X	X	X	-	X	X	X
Truck	-	X	-	-	X	X	X	-	X
Bus	-	X	X	-	X	X	X	-	X
Water	-	-	X	-	-	-	-	-	X
Train	-	-	-	X	-	X	-	X	X
Medical and Legal									
Doctors	1	3	3	2	3	8	11	8	13
Psychiatric Services	periodic visits	-	?	-	-	-	X	-	-
Hospital Beds	-	8	32	39	34	40	108	65	131
Lawyers	-	-	?	-	1 day/wk.	3	2	2	2
Education									
Elementary school	X	X	X	X	X	X	X	X	X
High school	X	X	X	to grade 10	X	X	X	X	X
Number of teachers	25	31	30	30	51	80	100	109	182
Library	X	X	X	X	X	X	X	X	X
Post-secondary educ.	-	evening adult educ. classes	?	-	-	-	X	X	-
Other									
Manpower offices	-	X	-	-	X	part time	X	X	X
Fire protection	X	X	X	X	X	X	X	X	X
Police protection	X	X	X	-	X	X	X	X	X
Recreation facilities	X	X	X	X	X	X	X	X	X

APPENDIX III - 2
Summary of Dunn and Bradstreet Listings

Number Unique SIC Codes	SIC	Assiniboia 49	Canora 50	Esterhazy 48	Kamsack 52	Tisdale 61
Grocery Store, confectionary	5411,5441	X	X	X	X	X
Bank	60__	X	X	X	X	X
Eating and Drinking places	5812,5813	X	X	X	X	X
Automotive dealers & gasoline S.S.	55__	X	X	X	X	X
Clothing stores	56__	X	X	X	X	X
Construction, general contractors	15__ -16__	X	X	X	X	X
Construction,special contractors	17__	X	X	X	X	X
Trans. motor freight, water	42__, 44__	X	X	X	X	X
Drug Store	5912	X	X	X	X	X
Other Misc. retail	5661,59__,nec	X	X	X	X	X
Furniture,home furnishings	57__		X	X	X	X
General merchandise stores	53__	X	X	X	X	X
Hotels, motor courts, etc	70__	X	X	X	X	X
Bldg. materials, hardware	52__	X	X	X	X	X
Mining	10__-14__			X	X	
Business services,equipment & leasing, janitorial advertising	73__	X				X
Automotive repair, auto rental	75__	X		X	X	X
Wholesalers, nondurables	51__	X	X		X	X
Mfg. publishers, printing	27__	X	X	X		X
Amusement, recreation	79__	X	X	X	X	X
Miscellaneous repair	76__	X	X	X	X	
Personal Services	72__	X	X	X	X	X
Wholesalers, durables	50__	X	X	X	X	X
Trans.; local, suburban	41__					X
Trans.; air	45__			X		
Mfg. lumber, wood products	24__-26__					X
Other mfg.	20__,28__-39__		X	X	X	X
Holding cos.	67__					
Public utility services & comm.	49__,48__				X	
Trans. services	47__					
Primary production(agr.,fishing,forestry)	01__-09__	X	X	X		X
1974 SHSP Population [1]		2707	2786	3029	2503	2884

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[1] Saskatchewan, Department of Public Health, Saskatchewan Hospital Services Plan, Covered Population, 1974.